E-mail: http://www.LGEservice.com/techsup.html

LG

COLOR MONITOR

SERVICE MANUAL

MODEL: FLATRON L1934S

(W1934S-BNT/SNT.AxxQQPH. For CMO MODULE, AxxVQPH. For AUO MODULE xx:sales marketing, Mstar scaler)

CAUTION
BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.



*To apply the **MSTAR Chip**.

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type : TFT Color LCD Module
Active Display Area : 19.0 inch
Pixel Pitch : 0.285 (H) x 0.285 (V)
Color Depth : 6bits, 16.7M colors
Size : 428 (H) x 278 (V) x 16.2(D)
Electrical Interface : LVDS
Surface Treatment : Hard-coating(3H), Anti-Glare
Operating Mode : Normally White, Transmissive mode
Backlight Unit : 4-CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio > 10

Left : -80° min., -85°(Typ) Right : +80° min., +85°(Typ)
Top :+75° min., +80°(Typ) Bottom : -75° min., -80°(Typ)

2-2. Luminance : 220(min), 300(Typ) (Full White pattern, 0.7V) -**6500K**
: 170(min) (Full White pattern, 0.7V) -**9300K**

2-3. Contrast Ratio : 630(min), 1000(Tye)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal
• Type : Separate Sync, SOG

3-2. Video Input Signal
1) Type : R, G, B Analog
2) Voltage Level : 0~0.71 V
a) Color 0, 0 : 0 Vp-p
b) Color 7, 0 : 0.467Vp-p
c) Color 15, 0 : 0.714Vp-p
3) Input Impedance : 75Ω

3-3. Operating Frequency
Horizontal : 30 ~ 83kHz
Vertical : 56 ~ 75Hz

4. Max. Resolution

D-sub Analog : 1440 x 900@75Hz

5. POWER SUPPLY

5-1. Power : AC 100~240V, 50/60Hz , 0.8A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	36 W(Typical)	BLUE
STAND-BY	OFF/ON	OFF	less than 1 W	AMBER
SUSPEND	ON/OFF	OFF	less than 1 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 1 W	AMBER
POWER S/W OFF	-	-	less than 1 W	OFF

6. ENVIRONMENT

6-1. Operating Temperature : 10°C~35°C (Ambient)
6-2. Relative Humidity : 10%~80% (Non-condensing)
6-3. MTBF : 50,000 HRS with 90% Confidence
Lamp Life : 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

Width : 44.836 mm (17.65 inchs)
Depth : 18.30 mm (7.20 inchs)
Height : 37.575 mm (14.79 inchs)

8. WEIGHT (with TILT/SWIVEL)

Net. Weight : 3.2 kg
(7.05 lbs)

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠ on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

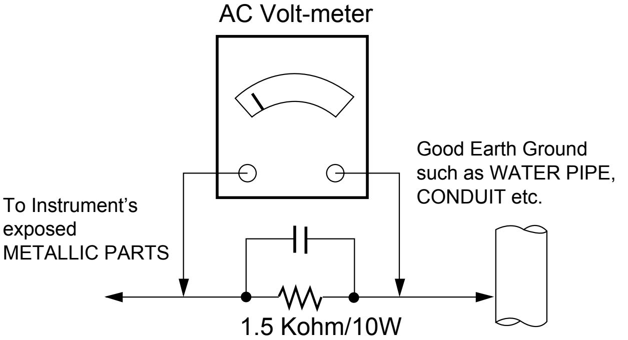
⚠ CAUTION
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

Leakage Current Hot Check Circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the ***SAFETY PRECAUTIONS*** on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
      CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.
   Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
   CAUTION: This is a flammable mixture.
   Unless specified otherwise in this service manual, lubrication of contacts in not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
9. *Use with this receiver only the test fixtures specified in this service manual.*
   CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices.* Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500° F to 600° F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.
   Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature.
   (500° F to 600° F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuitboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500° F to 600° F)
   b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

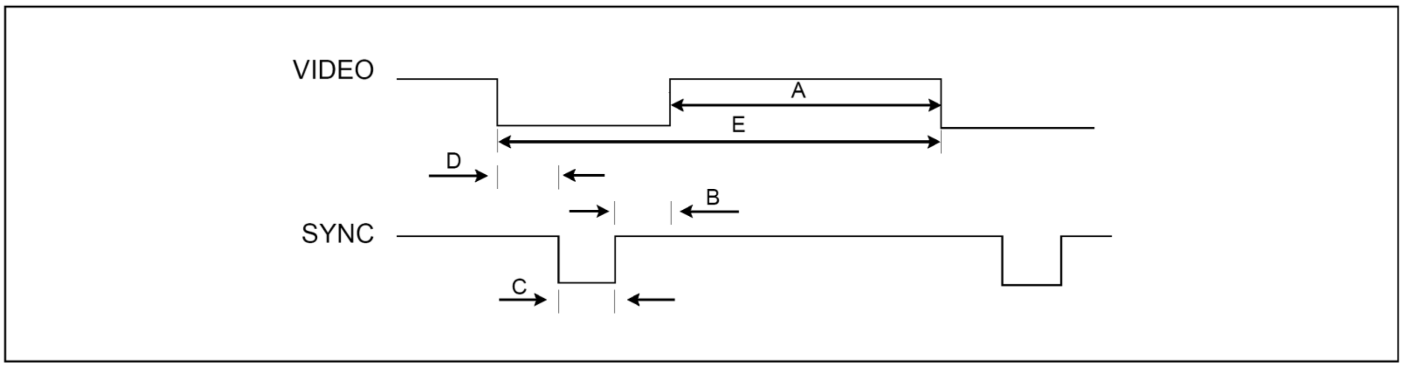
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
   Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
   Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

TIMING CHART



MODE	H / V	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Sync Duration (C)	Front Porch (D)	Back Porch (B)	Resolution
1	H(Pixels)	+	25.175	31.469	800	640	96	96	48	640 X 350
	V(Lines)	-		70.08	449	350	2	2	60	
2	H(Pixels)	-	28.321	31.469	900	720	108	108	52	
	V(Lines)	+		70.08	449	400	2	2	35	720 X 400
3	H(Pixels)	-	25.175	31.469	800	640	96	8	40	
	V(Lines)	-		59.94	525	480	2	2	25	640 x 480
4	H(Pixels)	-	31.5	37.5	840	640	64	16	120	
	V(Lines)	-		75	500	480	3	1	16	640 x 480
5	H(Pixels)	+	40.0	37.879	1056	800	128	40	88	
	V(Lines)	+		60.317	628	600	4	1	23	800 x 600
6	H(Pixels)	+	49.5	46.875	1056	800	80	16	160	
	V(Lines)	+		75.0	625	600	3	1	21	800 x 600
7	H(Pixels)	-	57.2832	49.725	1152	832	61	64	224	832 x 624
	V(Lines)	-		74.553	667	624	3	3	37	
8	H(Pixels)	-	65.0	48.363	1344	1024	136	24	160	
	V(Lines)	-		60.0	806	768	6	3	29	1024 x 768
9	H(Pixels)	-	78.5	60.023	1312	1024	96	16	176	
	V(Lines)	-		75.029	800	768	3	1	28	1024 x 768
10	H(Pixels)	+/-	100.0	68.681	1456	1152	32	128	144	
	V(Lines)	+/-		75.062	915	870	3	3	39	1152 x 870
11	H(Pixels)	+/-	92.954	61.805	1504	1152	30	128	194	1152 x 900
	V(Lines)	+/-		65	937	900	2	4	31	
12	H(Pixels)	+	108.0	63.981	1688	1280	112	48	248	1280x1024
	V(Lines)	+		60.02	1066	1024	3	1	38	
13	H(Pixels)	+	135.0	79.976	1688	1280	144	16	248	1280 x 1024
	V(Lines)	+		75.035	1066	1024	3	1	38	
14	H(Pixels)	+	88.750	55.469	1600	1400	32	48	80	
	V(Lines)	-		59.901	926	900	6	3	17	1440 x 900
15	H(Pixels)	-	106.500	55.935	1904	1400	152	80	232	
	V(Lines)	+		59.887	934	900	6	3	25	1440 x 900
16	H(Pixels)	-	136.750	70.635	1936	1400	152	96	248	
	V(Lines)	+		74.984	942	900	6	3	33	1440 x 900

DISASSEMBLY-Set

#1



Put the monitor on a soft flat.

#2



Pull out the hinge cover as arrow direction.

#3



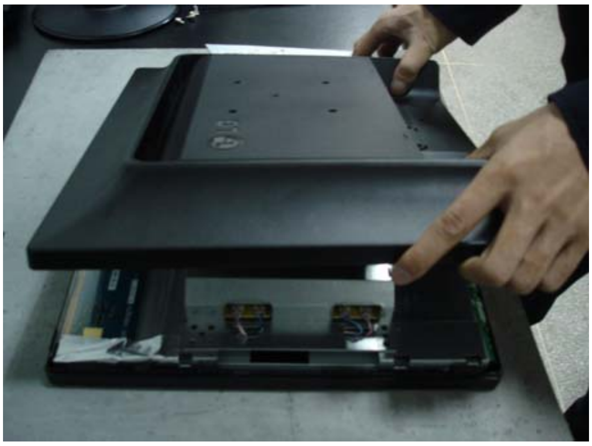
Remove the four screws.

#4



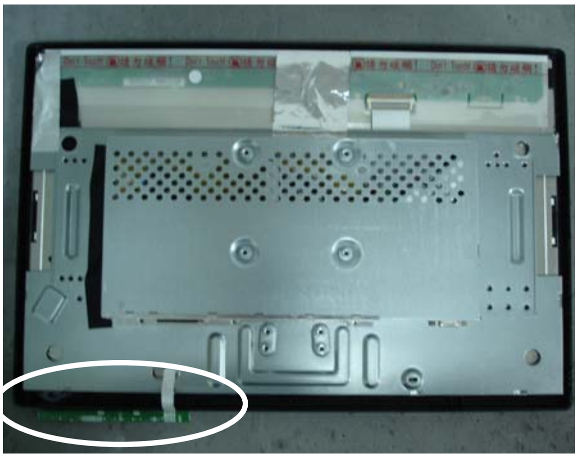
Put the front cover upward. Then let the all latches are separated.

#5



Put the front face down, disassembly back cover.

#6



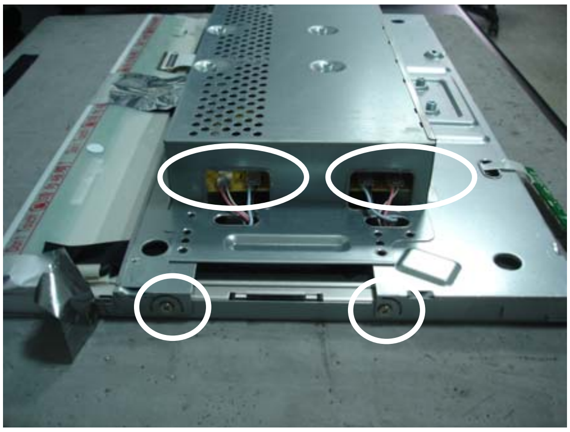
Pull the key board out of bezel.

#7



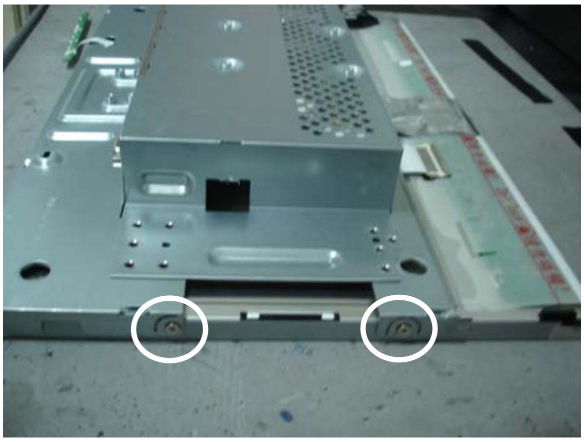
Disassembly the bezel.

#8



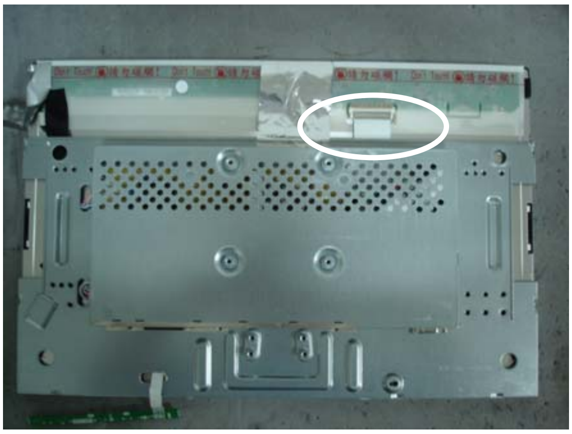
Disassembly the connector and screw.

#9



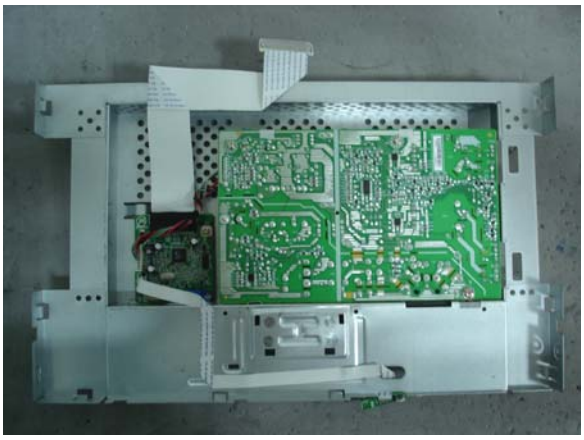
Remove the 2 screws.

#10



Disassemble the LVDS cable

#11



Main board and power board

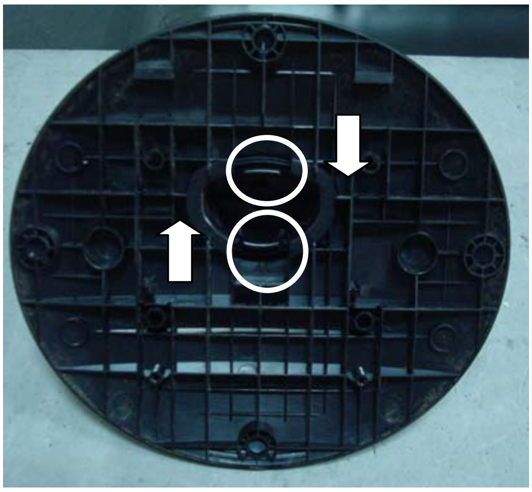
#12



The panel

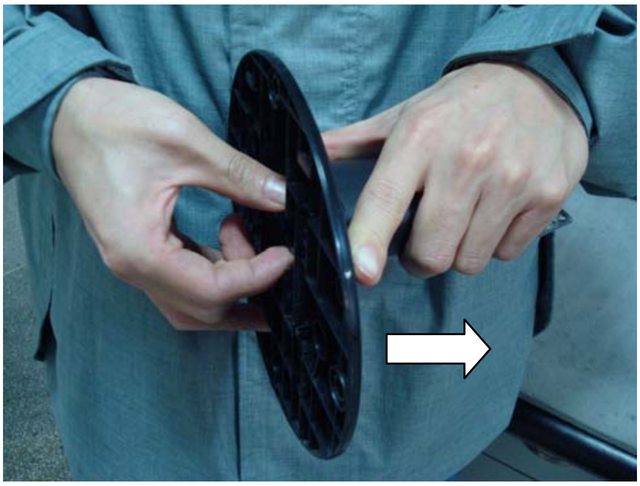
DISASSEMBLY-Stand

#1



Pull the Base 2 ea Latches to inside until losing elasticity.

#2



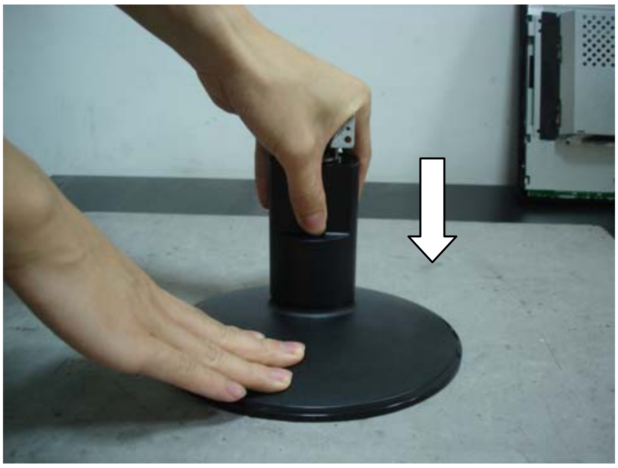
Consequently, pull the stand body directly.

#3



Separate Stand Body & Stand Base.

#4



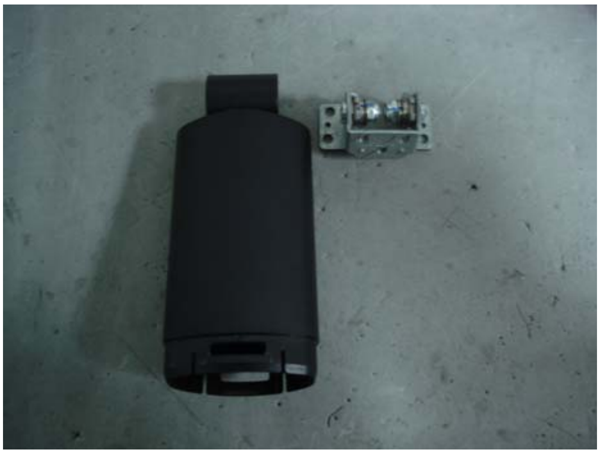
Fix Stand Base & Stand Body.

#5



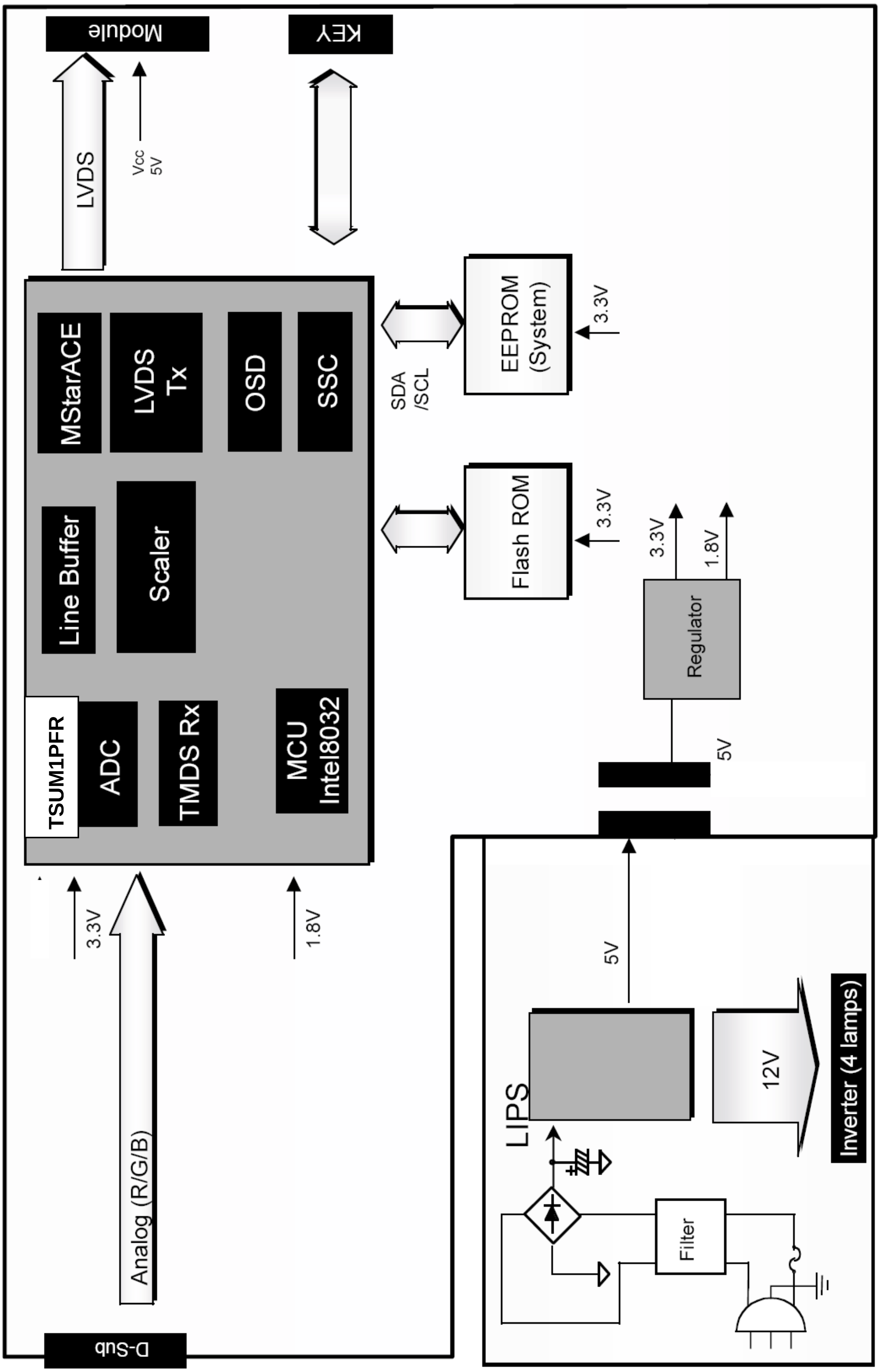
Remove the three screws.

#6



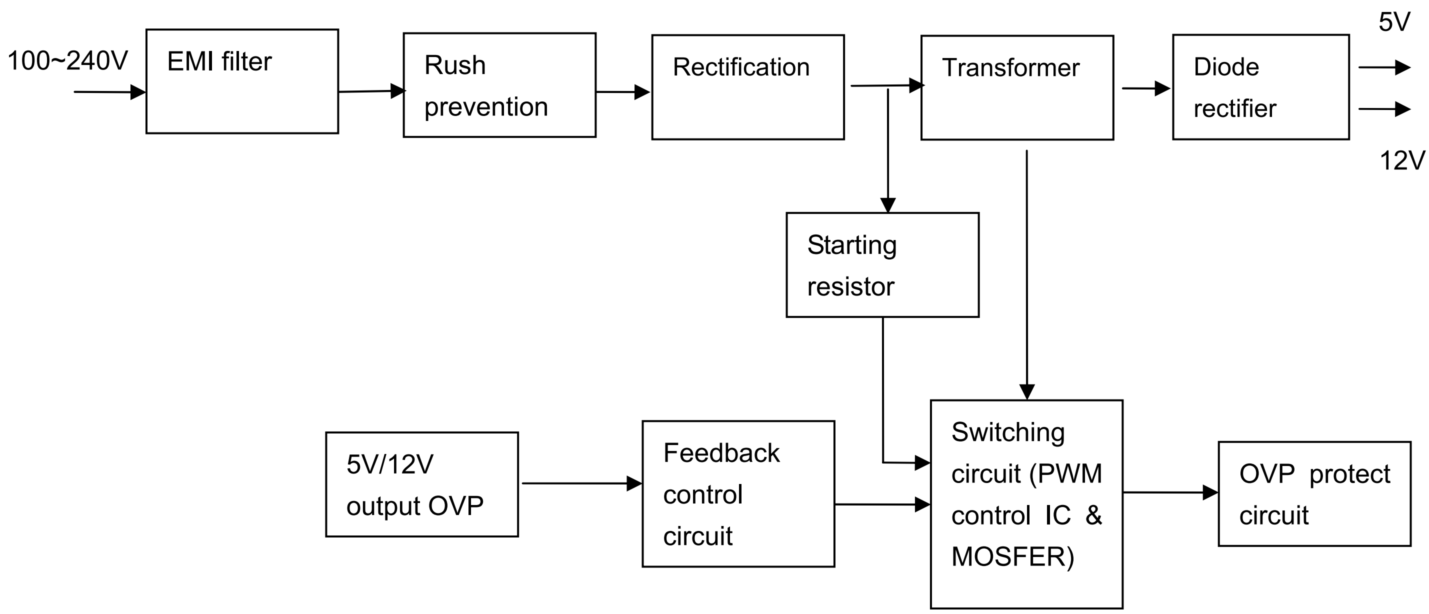
Separate the hinge and stand.

BLOCK DIAGRAM

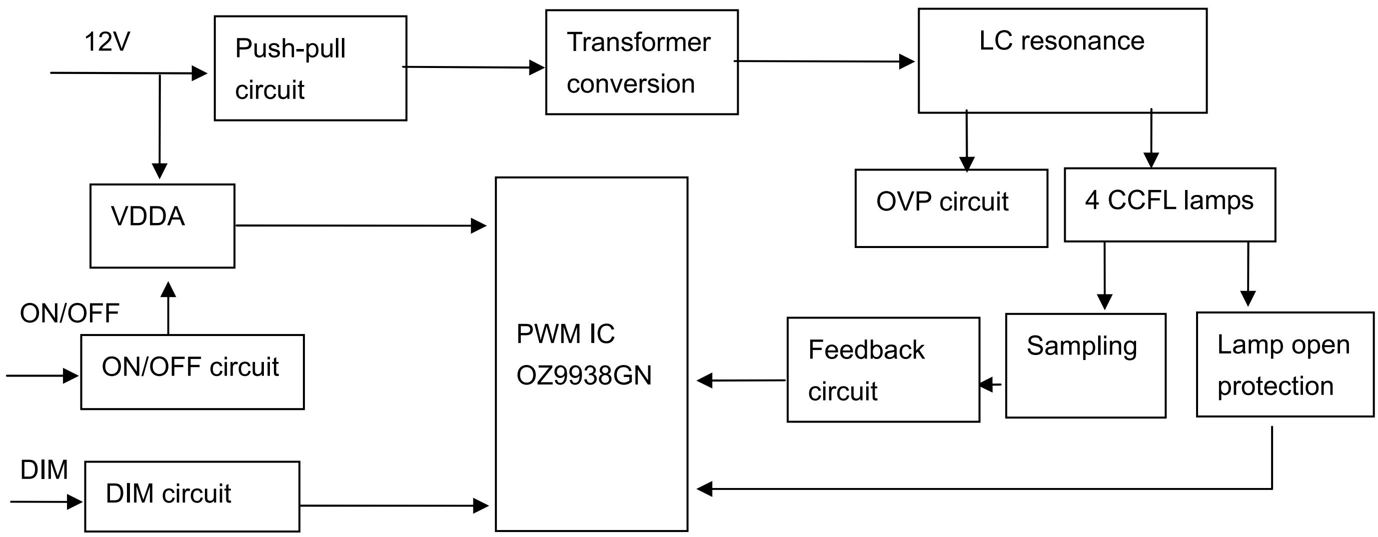


BLOCK DIAGRAM-POWER

Power



Inverter



DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.

The pixel clock for each mode is generated by the PLL.

The range of the pixel clock is from 25MHz to 135MHz.

This part consists of the Scaler, ADC converter, TMDS receiver and LVDS transmitter.

The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.

12V is provided for inverter, 5V is provided for LCD panel.

Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.

The inverter converts from DC 12V to AC 700Vrms and operates back-light lamps of module.

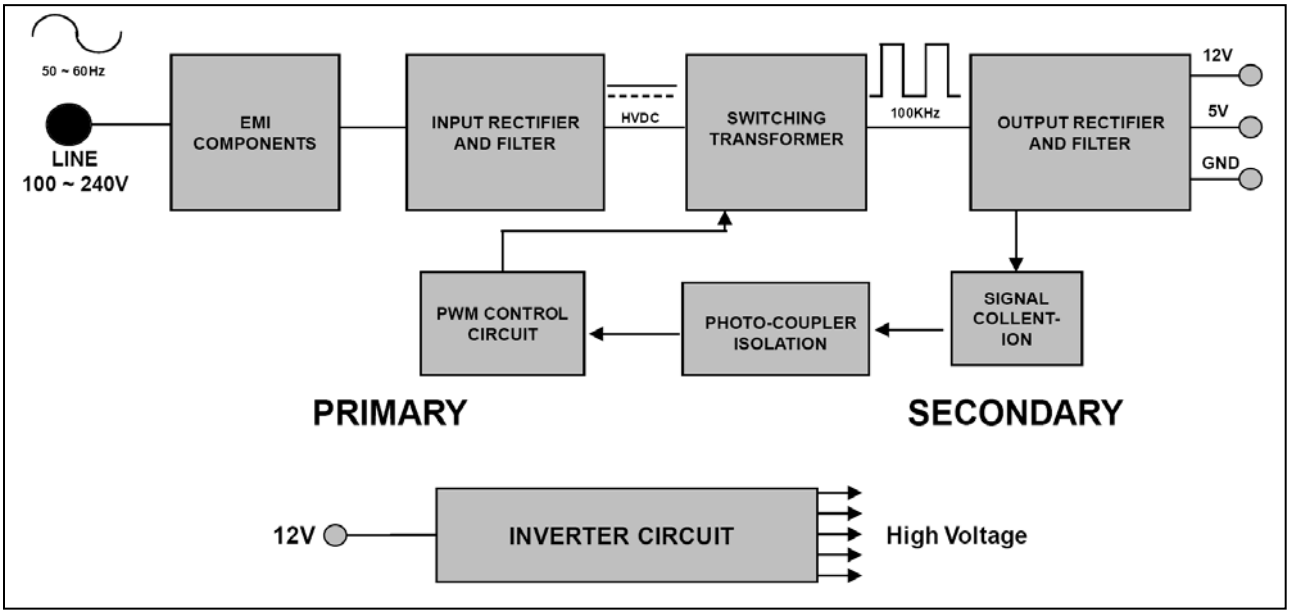
3. MICOM Part.

This part is including video controller part. And this part consists of EEPROM IC which stores control data, Reset IC and the Micom.

The Micom distinguishes polarity and frequencies of the H/V sync are supplied from signal cable.

The controlled data of each mode is stored in EEPROM.

LIPS Board Block Diagram



Operation description_LIPS

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC,VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is for transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

6. Signal collection.

This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

Windows EDID V1.0 User Manual

Operating System: DOS, windows98, 2000, XP

1. Parallel port setting

Enter your bios，and do as followings.

a) Integrated peripheral

b) Super IO Device

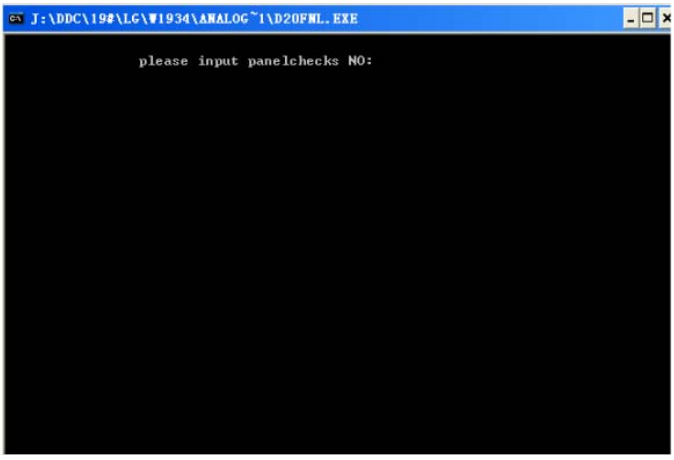
c) Parallel port mode

you should set the” parallel port mode” to SPP for using the DOS EDID tool surely.

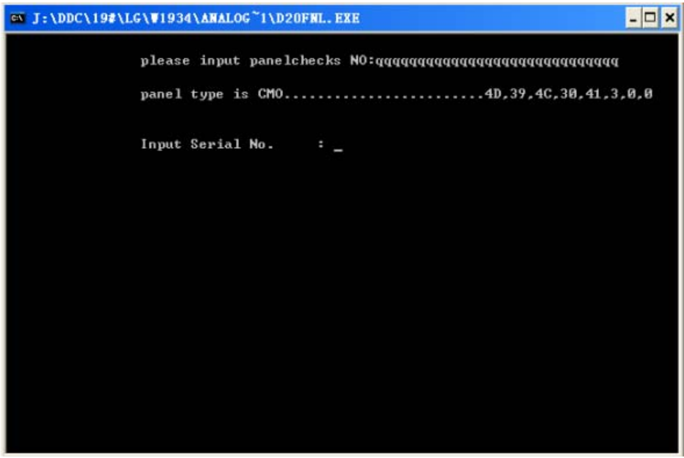
2. EDID Write

① Run D20FNL.EXE.　And choose 1 to write.

② choose panel type

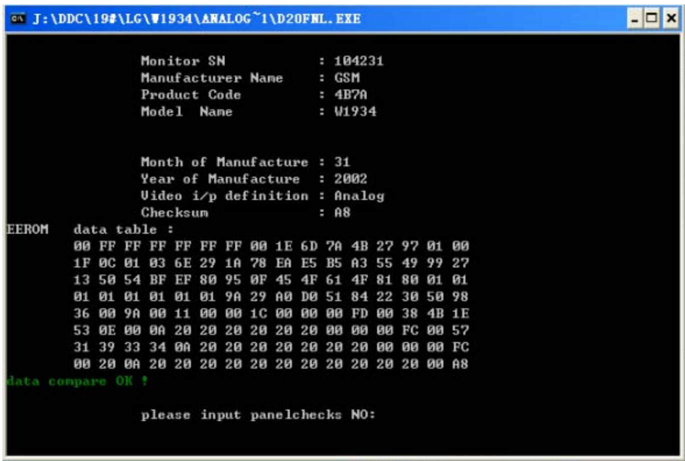


③ if you get the right panel type, the you can go to the next step; if not ,the panel type loop will continue. For example, your monitor use the CMO Panel ,then you should assure a certain digit(usually the sixteenth or seventeenth digit for LG) of your input panel check number is ‘q’ or ‘Q’.



④ input serial NO.

For LG , the number of SN is 12. So input 12 digits，then EDID data will be send to the monitor from PC.



SERVICE MODE

1) Turn off the power switch at the front side of the display.

2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.

3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

a) CLEAR ETI: To initialize using time.

b) Auto Color: W/B balance and automatically sets the gain and offset value.

c) AGING: Select Aging mode (on/off).

d) PANEL: used panel type

e) NVRAM INIT: EEPROM initialize. (24C08)

f) R/G/B-9300K: Allows you to set the R/G/B-9300K value manually.

g) R/G/B-6500K: Allows you to set the R/G/B-6500K value manually.

h) R/G/B-Offset: Allows you to set the R/G/B-Offset value manually. (Analog Only)

i) R/G/B-Gain: Allows you to set the R/G/B-Gain value manually. (Analog Only)

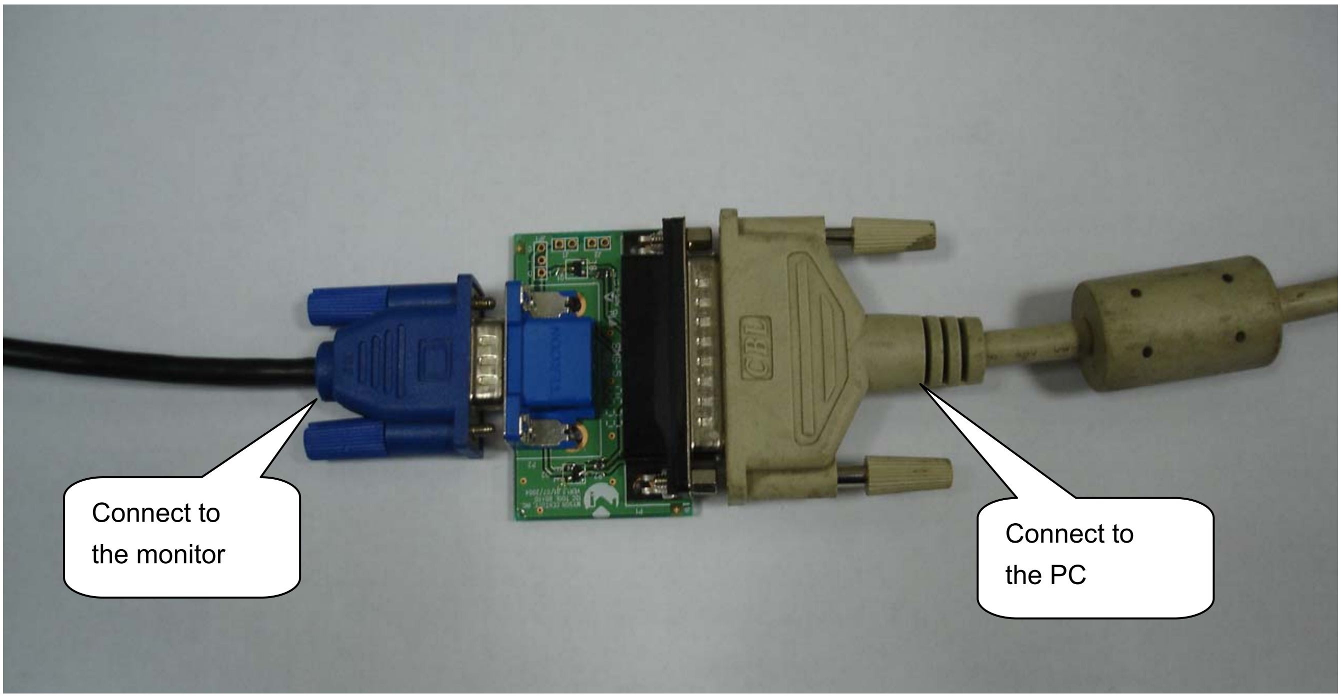
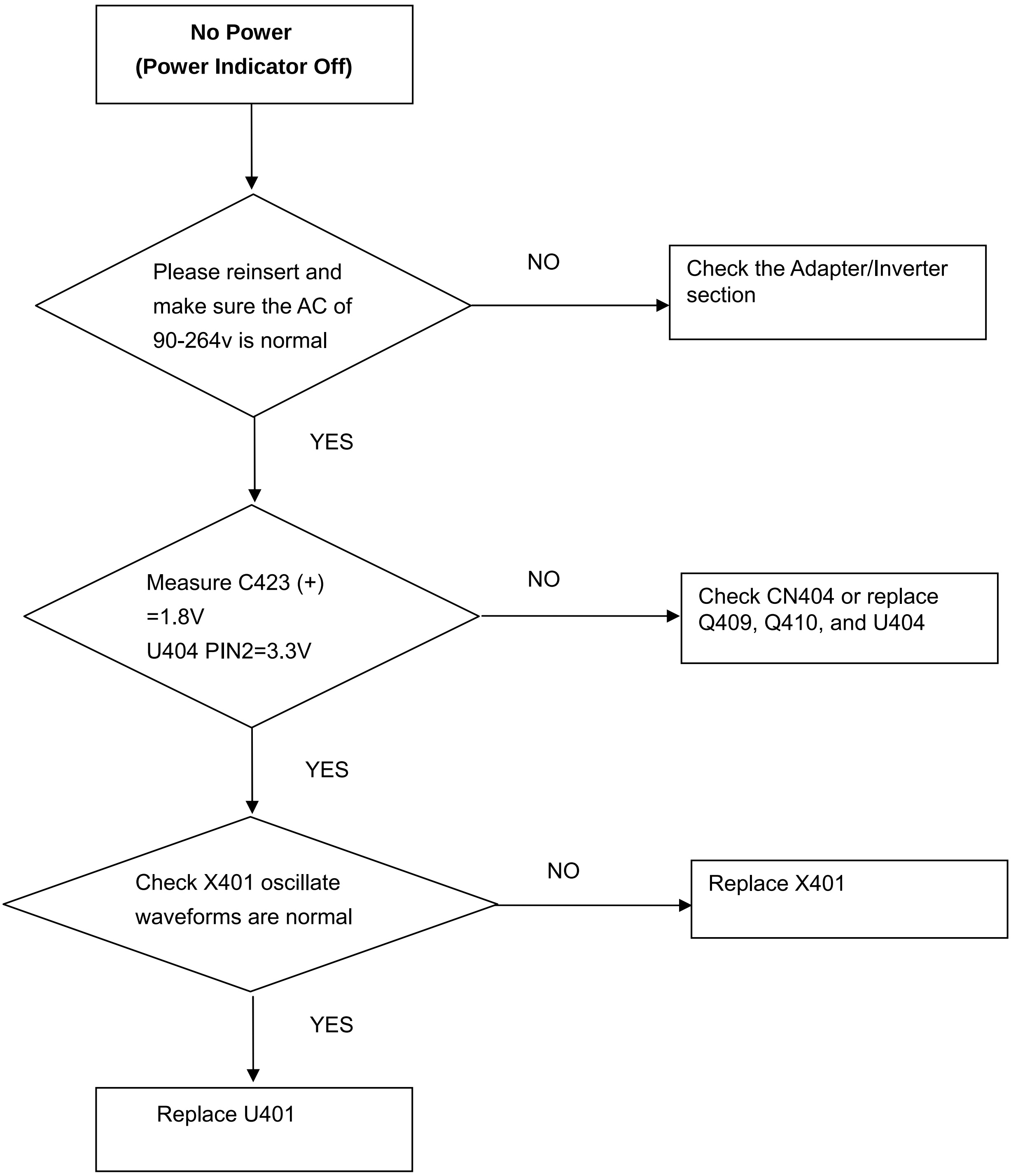


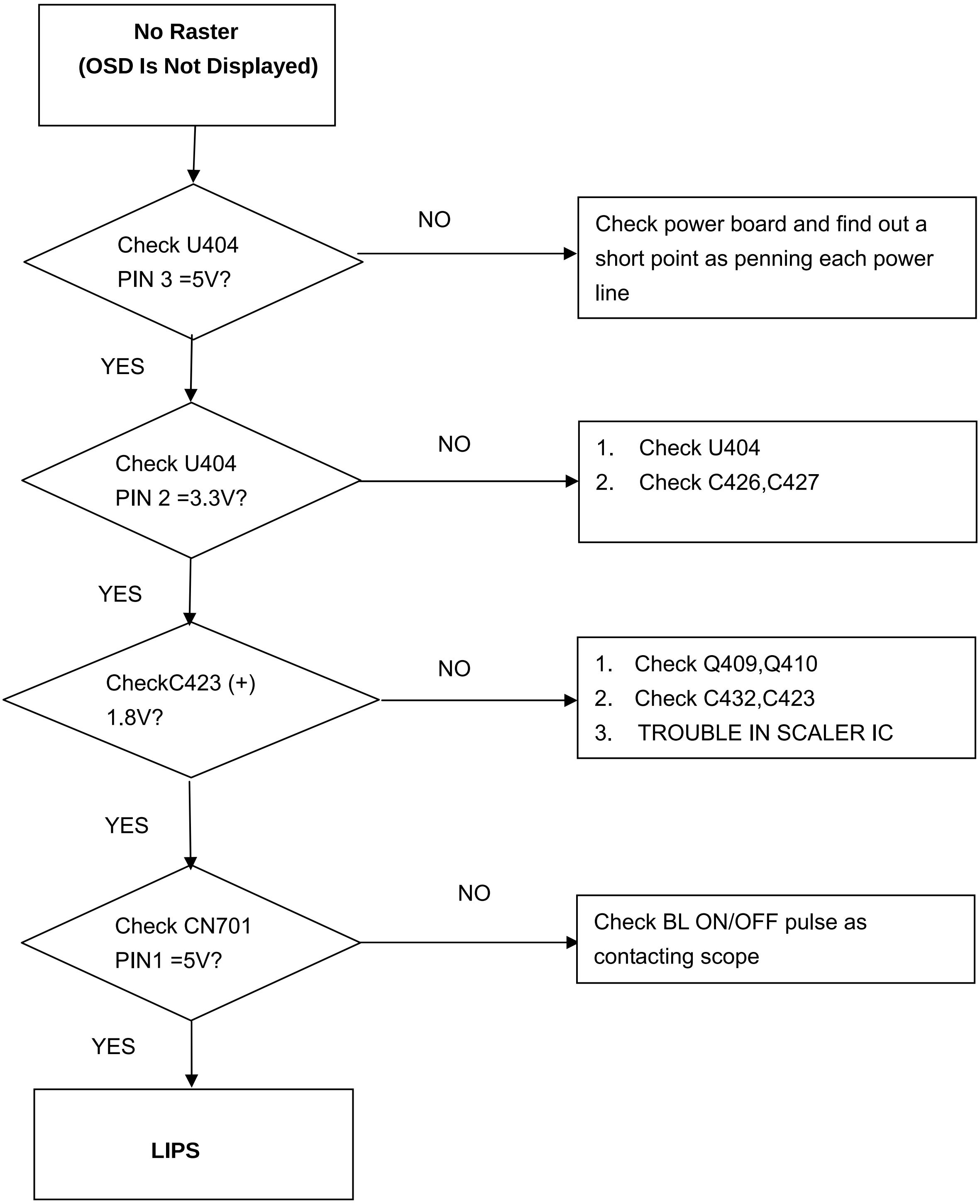
Figure 1. Cable Connection for Micom uploading

TROUBLESHOOTING GUIDE

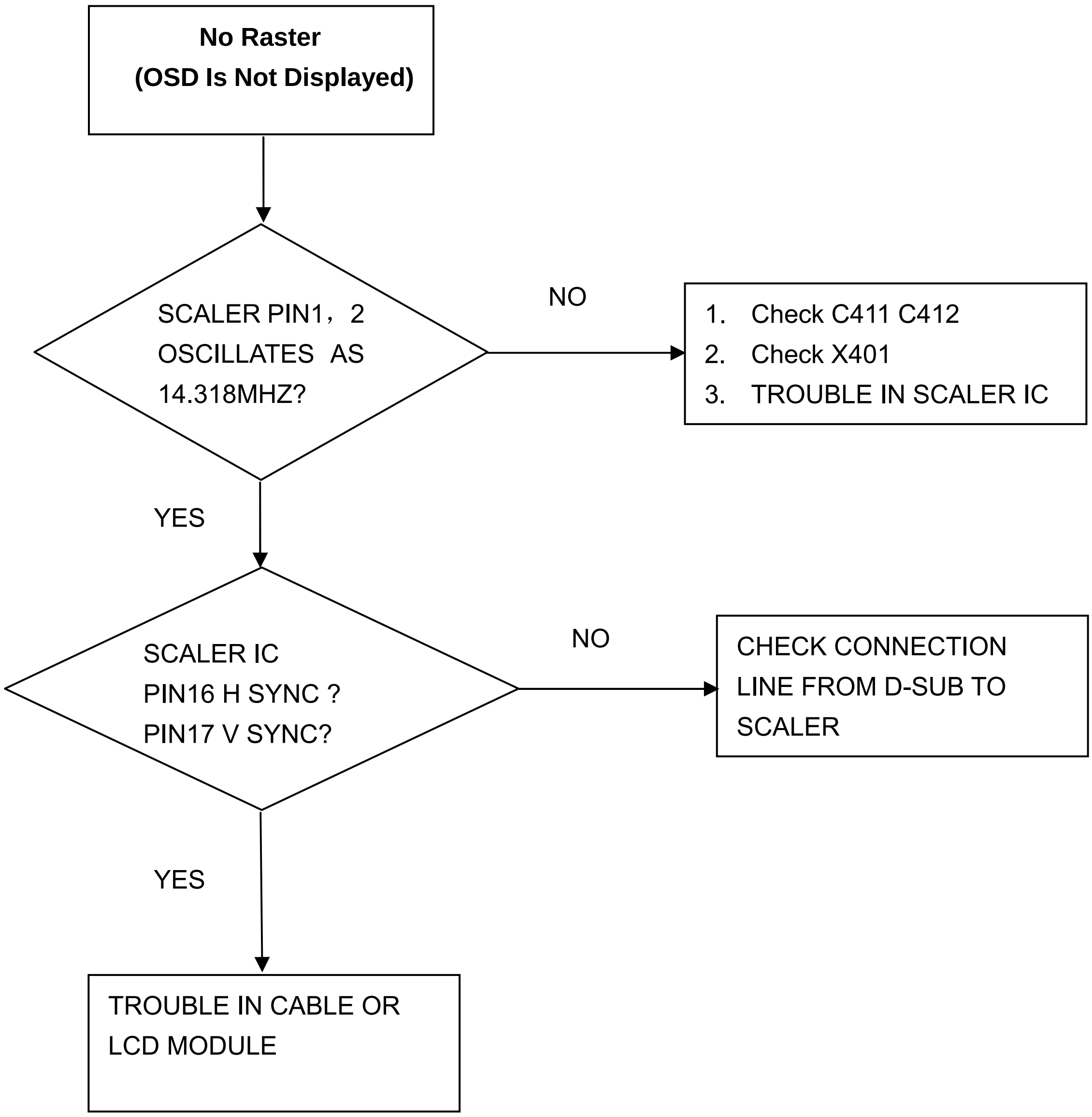
1. NO POWER



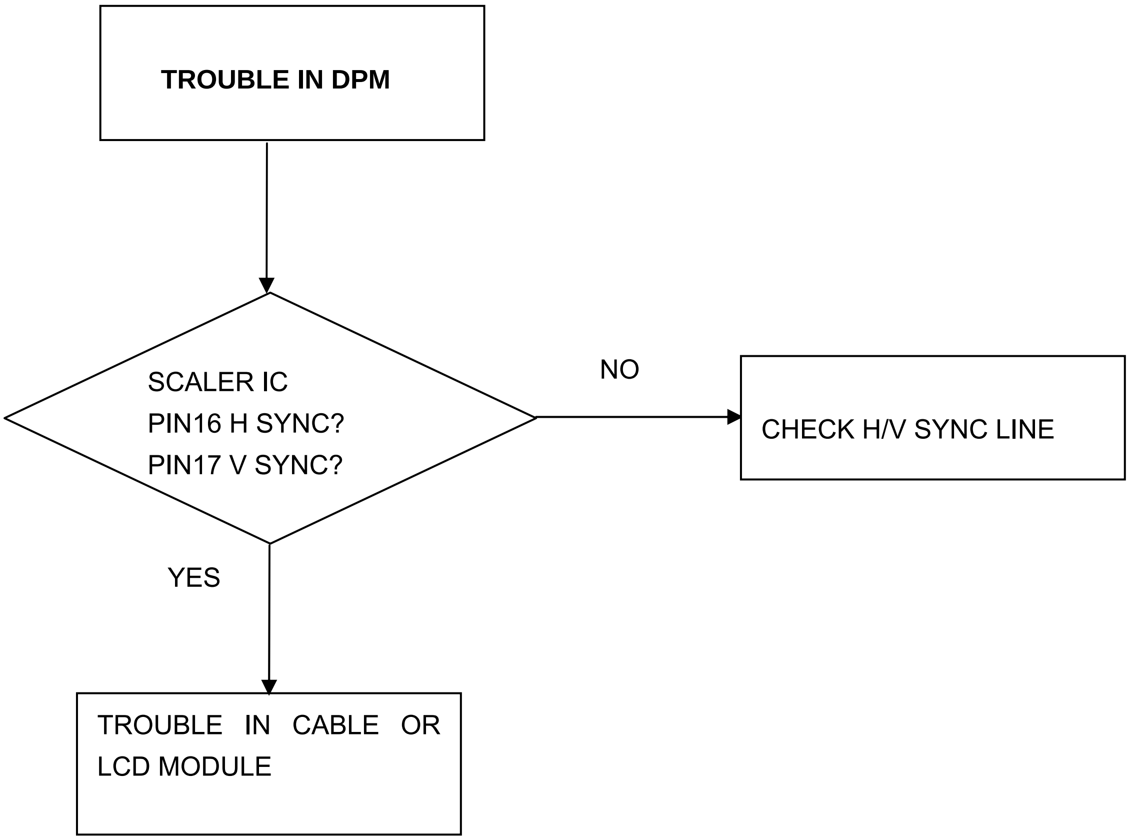
2. NO RASTER (OSD IS NOT DISPLAY)-LIPS



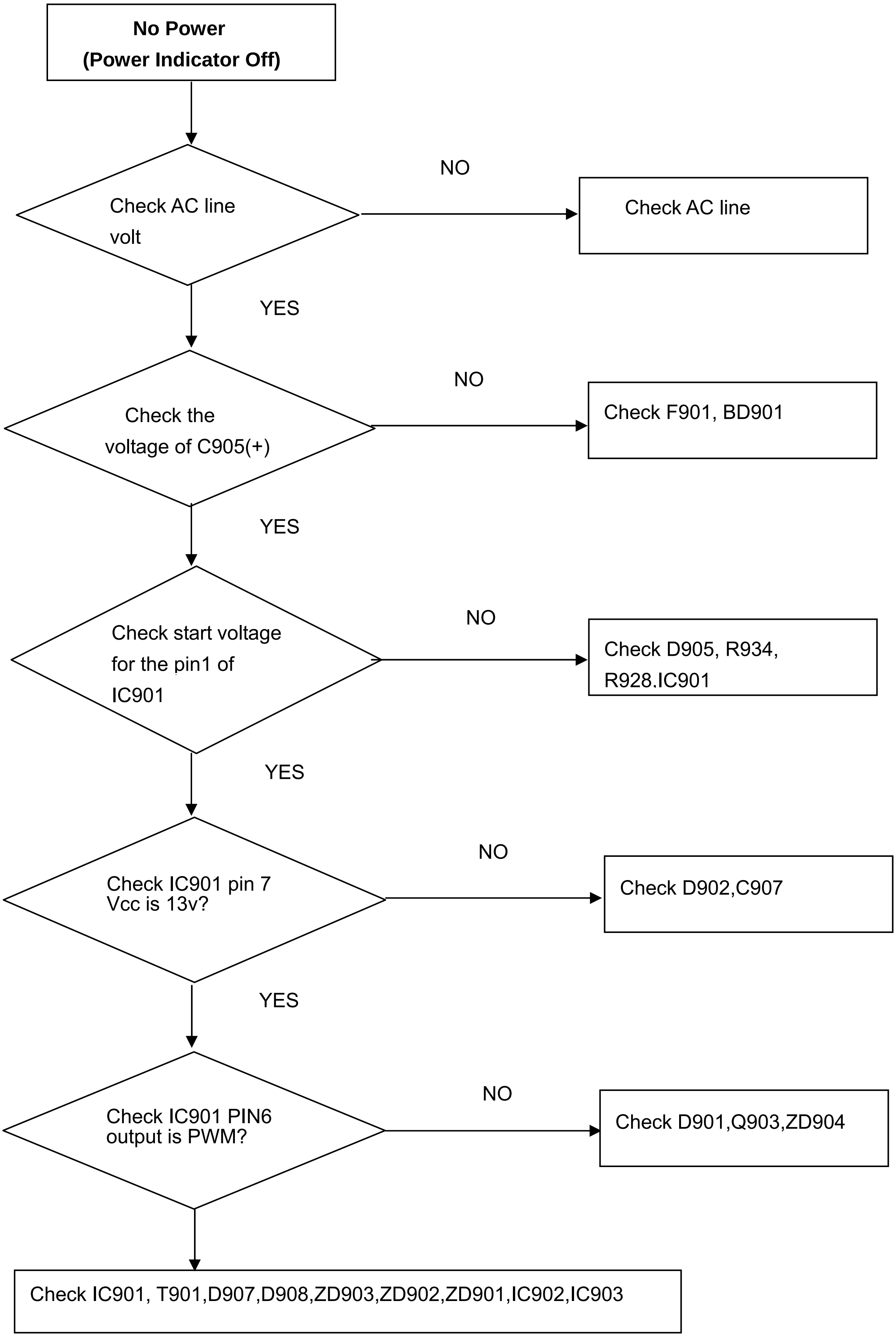
2. NO RASTER (OSD IS NOT DISPLAY)-MSTAR



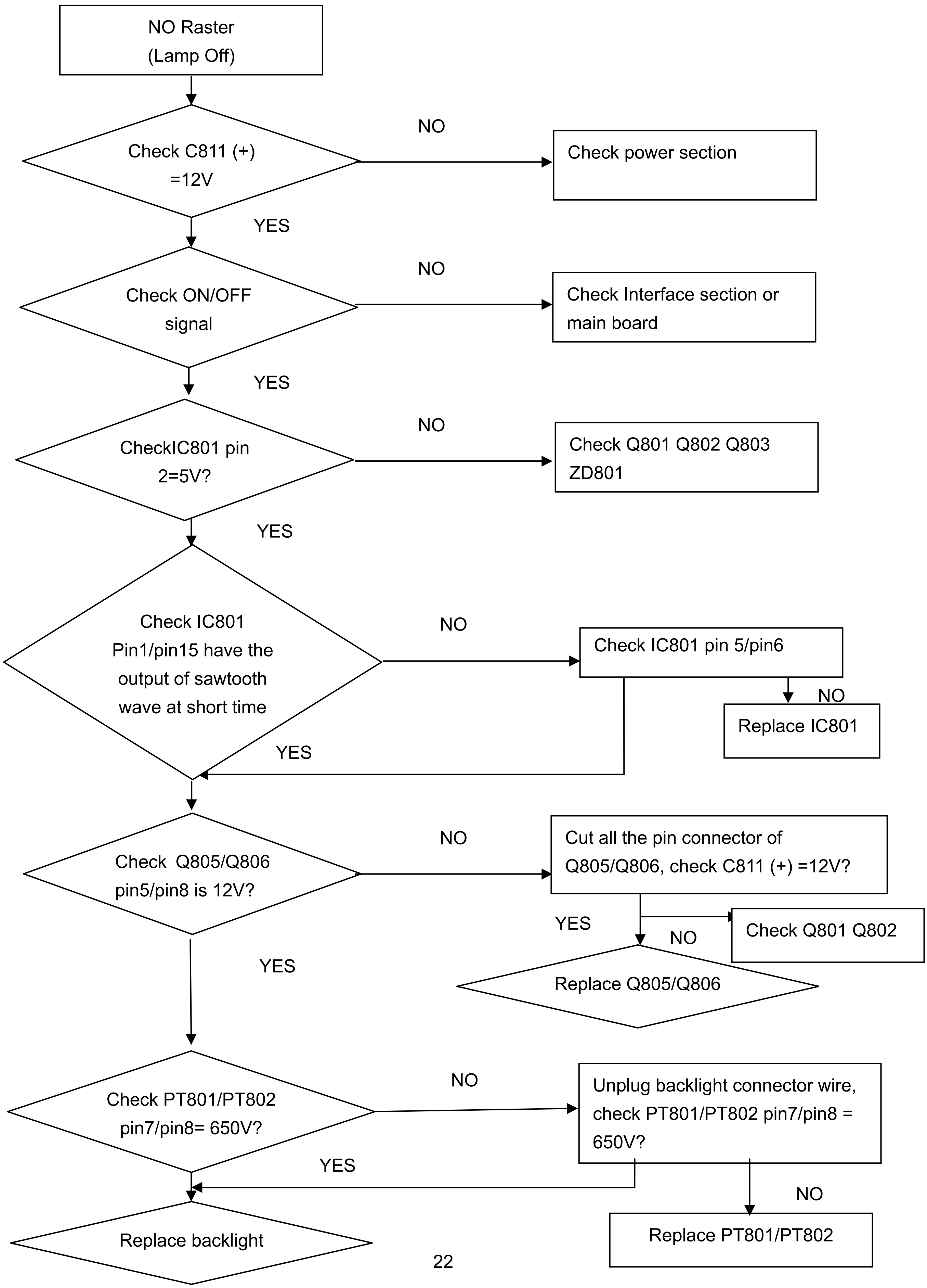
4. TROUBLE IN DPM



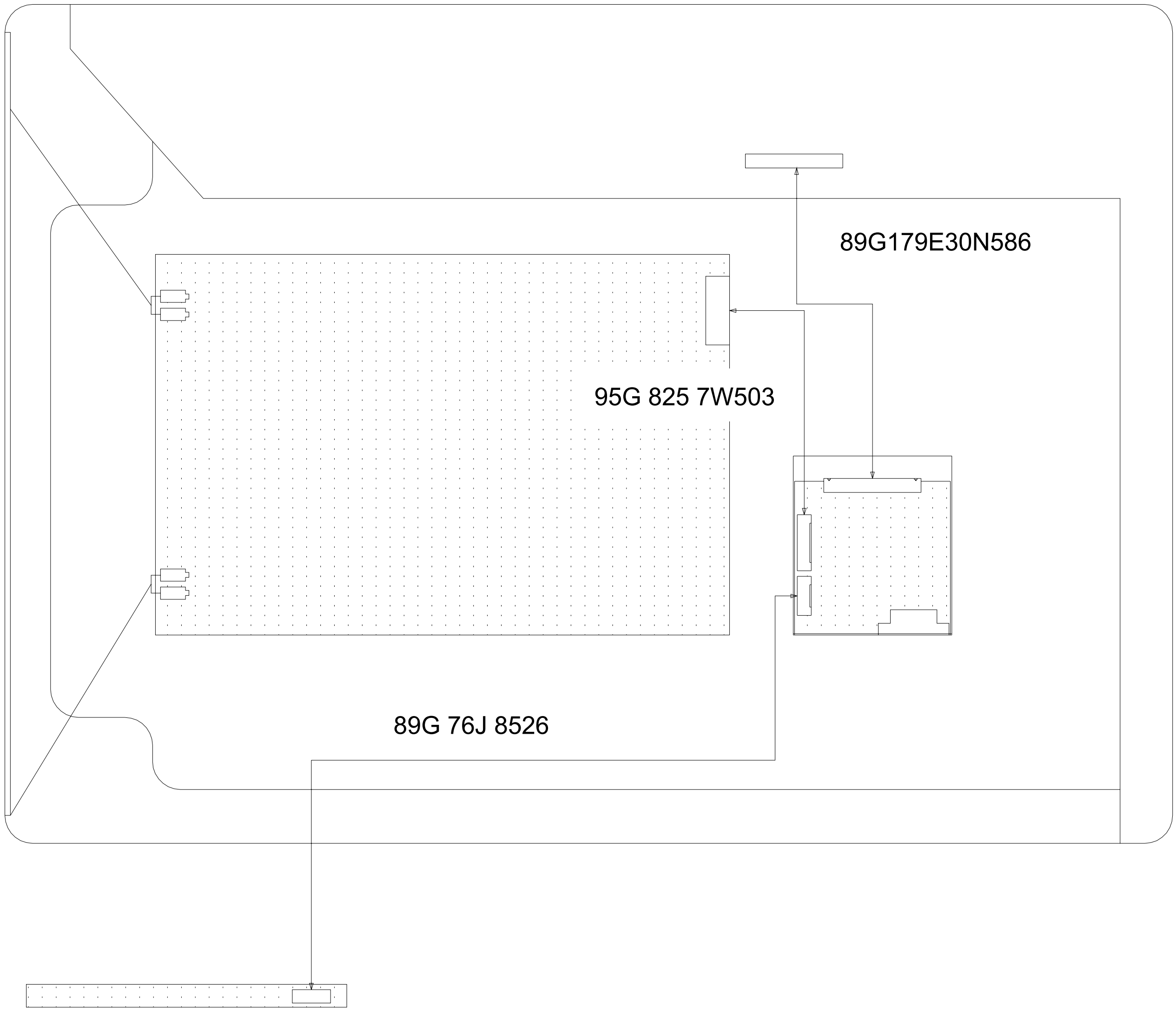
5. POWER


No Power
(Power Indicator Off)
Check AC line volt
NO
Check AC line
YES
Check the voltage of C905(+)
NO
Check F901, BD901
YES
Check start voltage for the pin1 of IC901
NO
Check D905, R934, R928.IC901
YES
Check IC901 pin 7 Vcc is 13v?
NO
Check D902,C907
YES
Check IC901 PIN6 output is PWM?
NO
Check D901,Q903,ZD904
Check IC901, T901,D907,D908,ZD903,ZD902,ZD901,IC902,IC903

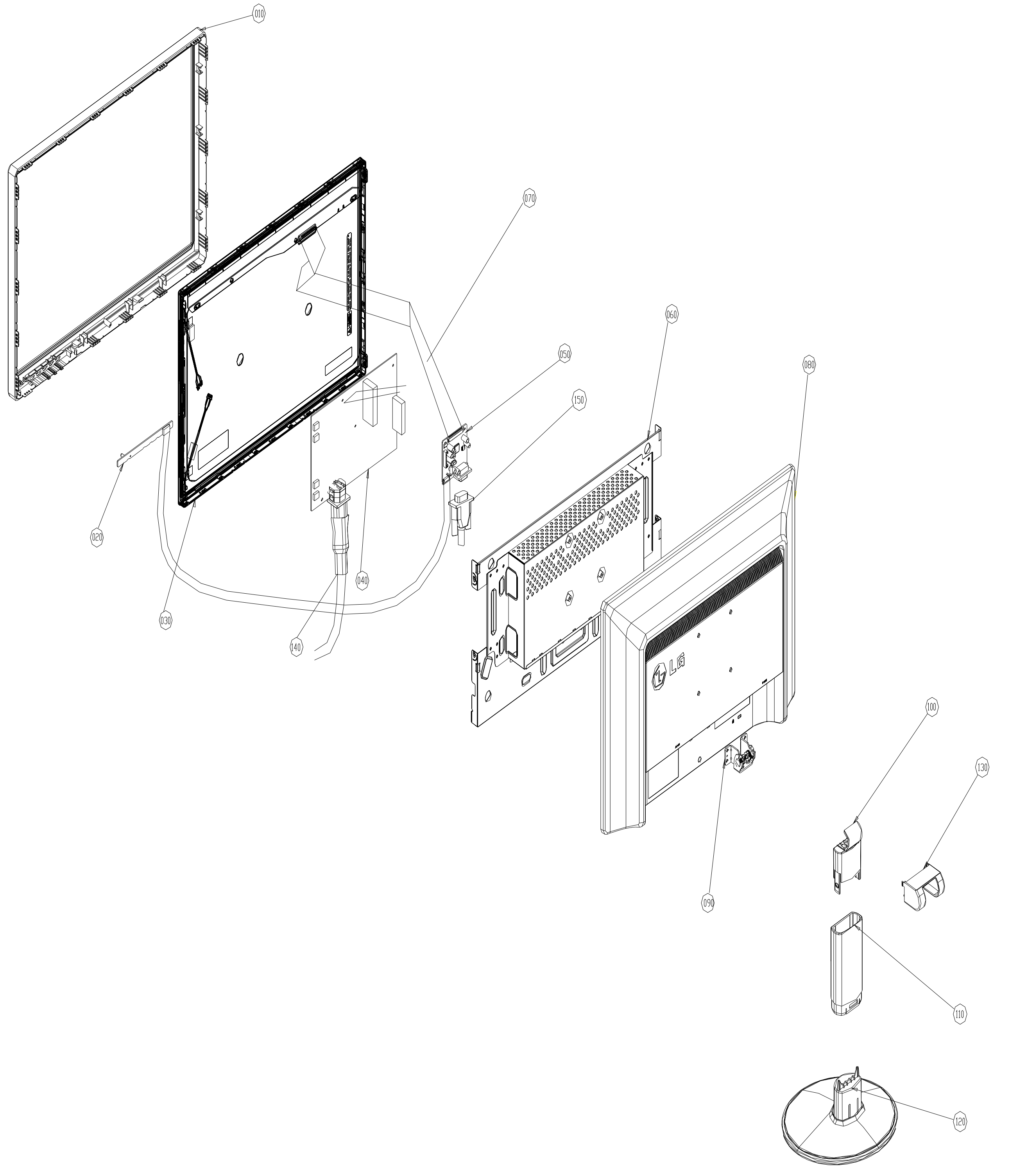
6. RASTER


NO Raster
(Lamp Off)
Check C811 (+)
=12V
NO
Check power section
YES
Check ON/OFF
signal
NO
Check Interface section or
main board
YES
CheckIC801 pin
2=5V?
NO
Check Q801 Q802 Q803
ZD801
YES
Check IC801
Pin1/pin15 have the
output of sawtooth
wave at short time
NO
Check IC801 pin 5/pin6
NO
Replace IC801
YES
Check Q805/Q806
pin5/pin8 is 12V?
NO
Cut all the pin connector of
Q805/Q806, check C811 (+) =12V?
YES
NO
Check Q801 Q802
Replace Q805/Q806
YES
Check PT801/PT802
pin7/pin8= 650V?
NO
Unplug backlight connector wire,
check PT801/PT802 pin7/pin8 =
650V?
YES
NO
Replace PT801/PT802
Replace backlight

WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	TPV part no.	LGE part no.	Description
010	A34G0563ABNA1B0100	ABJ55934301	Bezel (Front cabinet) Silver color
	A34G0563 B6A1B0100	ABJ55934302	Bezel (Front cabinet) Black color
020	KEPC7QG8	EBU51011201	KEY BOARD include control wire
030	750GLM90A1A12N	COV30013601	CMO PANEL M190A1-L0A C1 NB
	750GLV90W1021N	COV30024802	AUO PANEL TPM190A1-PW01 V0
040	PWPC942MG1	EBU51011301	POWER BOARD
050	CBPC7MMRLGQ1	EBU51011401	MAIN BOARD FOR CMO
	CBPC84M5LGQ1	COV30024503	MAIN BOARD FOR AUO
060	Q15G0270101	MDQ48211901	MAIN FRAME
070	89G179E30N586	COV30013701	LVDS FFC Cable
080	A34G0564 B6 1B0100	ACQ55937401	REAR COVER
090	A37G0061 1	AGU55931102	HINGE ASS'Y
100	A34G0565 B6 1B0100	MCK48193801	STAND NECK
110	A34G0566 B6 1B0132	MCK48194001	STAND COVER
120	A34G0567 B6 1B0132	MCK48194201	BASE
130	A33G0317 B6 1L0100	MCK48193401	HINGE COVER
140	89G421A18N IS	6410TEW003A	POWER CORD BLK 6FT For Europe/Thailand/Vietnam/Russia/U.A.E
	89G402A18NIS	6410TUW008A	POWER CORD BLK 6FT For USA/Mexico/Panama/Canada
	89G410A-18N-IS	6410TBW004A	POWER CORD 10A/250V BLK 6FT UK for UK/Malaysia
	89G420A-18N-IS	6410TTW001A	POWER CORD BLK 6ft For Taiwan
	89G412A-18N-IS3	6410TSW003A	POWER CORD BLK 6ft For Australia
150	89G 728CAA 2G	COV30013801	SIGNAL CABLE

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
MAIN BOARD AND POWER BOARD PARTS ARE DIFFERENT.

* NOTE : **S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

				DATE: 2008. 01. 27
***S**	***AL**	**LOC. NO.**	**PART NO.**	**DESCRIPTION**
MAIN BOARD				
CAPACITORS				
		C427	067G 3151014KV	EC 105℃ CAP 100UF M 25V
		C426	067G 3151014KV	EC 105℃ CAP 100UF M 25V
		C423	067G 3151014KV	EC 105℃ CAP 100UF M 25V
		C421	067G 3151014KV	EC 105℃ CAP 100UF M 25V
		C410	067G215V100 7R	LOW E.S.R 10UF +/-20% 50V
		C432	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C428	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C422	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C420	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C419	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C417	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C416	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C415	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C414	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C413	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C409	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C407	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C406	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C404	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C403	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C401	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C412	065G0402220 31	CHIP 22PF 50V NPO
		C411	065G0402220 31	CHIP 22PF 50V NPO
		C103	065G0402220 31	CHIP 22PF 50V NPO
		C102	065G0402220 31	CHIP 22PF 50V NPO
		C408	065G0402224 17	CAP CER 0.22UF -20%-80%
		C429	065G0402224 17	CAP CER 0.22UF -20%-80%
		C113	065G0402473 12	CHIP 0.047uF 16V X7R
		C110	065G0402473 12	CHIP 0.047uF 16V X7R
		C109	065G0402473 12	CHIP 0.047uF 16V X7R
		C107	065G0402473 12	CHIP 0.047uF 16V X7R
		C106	065G0402473 12	CHIP 0.047uF 16V X7R
		C105	065G0402473 12	CHIP 0.047uF 16V X7R
		C101	065G0402473 12	CHIP 0.047uF 16V X7R

		C104	065G0402509 31	CHIP 5pF 50V NPO
		C108	065G0402509 31	CHIP 5pF 50V NPO
		C111	065G0402509 31	CHIP 5pF 50V NPO
DIODEs				
		ZD103	093G 39S 34 T	UDZSNP5.6B ROHM
		ZD104	093G 39S 34 T	UDZSNP5.6B ROHM
		D402	093G3004 3	SM340A
IC				
		U401	056G 562557	IC TSUM1PFR-LF
		U404	056G 563 52	IC AP1117D33LA TO252-3L ATC
		U102	056G 662 13	IC AZC099-04S SOT23-6L
		U103	056G 662 13	IC AZC099-04S SOT23-6L
		U403	056G1133 32	IC M24C04-WMN6TP SO8
		U402	056G1133 74(WLGMRT9MCQ1)	SST25VF010A-33-4C-SAE
TRANSISTOR				
		Q404	057G 417 6	PMBS3906/PHILIPS-SMT(06)
		Q406	057G 417 12 T	KEC 2N3904S-RTK/PS
		Q410	057G 417 22 T	TRA KN2907AS -60V/-0.6A SOT-23
		Q409	057G 417 22 T	TRA KN2907AS -60V/-0.6A SOT-23
		Q405	057G 763 1	A03401 SOT23 BY AOS(A1)
RESISTORs				
		R458	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R431	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R429	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R402	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R401	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R411	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R412	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R413	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R418	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R419	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R424	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R442	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R456	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R457	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R451	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R452	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R102	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R103	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R104	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R108	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R110	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R111	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R113	061G0402101	RST CHIPR 100 OHM +-5% 1/16W

		R114	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R115	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R117	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R405	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R441	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R118	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R121	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R120	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R455	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R454	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R453	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R439	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R437	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R433	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R421	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R417	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R408	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R407	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R406	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R404	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R436	061G0402104	RST CHIPR 100 KOHM +-5% 1/16W
		R414	061G0402121	RST CHIP 120R 1/16W 5%
		R410	061G0402121	RST CHIP 120R 1/16W 5%
		R409	061G0402203	RST CHIP 20K 1/16W 5%
		R105	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R106	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R109	061G0402390 0F	RST CHIP 390R 1/16W 1%
		R403	061G0402390 0F	RST CHIP 390R 1/16W 1%
		R427	061G0402392	RST CHIP 3.9K 1/16W 5%
		R428	061G0402392	RST CHIP 3.9K 1/16W 5%
		R435	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R440	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R116	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R112	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R107	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R101	061G0603000	RST CHIPR 0 OHM +-5% 1/10W
		R434	061G1206331	RST CHIPR 330 OHM +-5% 1/4W
COILs & FILTERs				
		FB402	071G 56K121 M	CHIP BEAD
		FB401	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 bullwill
		FB101	071G 59K190 B	19 OHM BEAD
		FB102	071G 59K190 B	19 OHM BEAD
		FB103	071G 59K190 B	19 OHM BEAD
OTHERs				
		X401	093G 22 53 J	14.31818MHZ/32PF/49US

		CN404	033G3802 9	WAFER 9P RIGHT ANELE PITCH
		CN402	033G8019 8C	FPC/FFC CONN
		CN403	033G801930F CH JS	CONNECTOR
		CN101	088G 35315F H	D-SUB 15PIN
POWER BOARD				
CAPACITORS				
		C903	063G107K474 6S	CAP X2 0.47UF K 275VAC
		C840	065G 3J3096ET	3PF,J,3KV,Z5P
		C839	065G 3J3096ET	3PF,J,3KV,Z5P
		C826	065G 3J3096ET	3PF,J,3KV,Z5P
		C824	065G 3J3096ET	3PF,J,3KV,Z5P
		C816	065G 6J1206ET	12PF 5% SL 6KV TDK
		C825	065G 6J1206ET	12PF 5% SL 6KV TDK
		C902	065G306M2222BP	2200PF +-20% 400VAC
		C901	065G306M2222BP	2200PF +-20% 400VAC
		C900	065G306M3322BP	3300PF 20%
		C923	067G215S1023KV	105℃ 1000UF M 16V
		C915	067G215V471 4H	CAP 105℃ 470UF M 25V
		C920	067G215V471 4H	CAP 105℃ 470UF M 25V
		C905	067G315Y10115H	CAP 105℃ 100uF M 450V
		C815	067T215P4714XV	CAP 105℃ 470UF M 25V
		C811	067T215P4714XV	CAP 105℃ 470UF M 25V
		C808	061G0805184	RST CHIPR 180 KOHM +-5% 1/8W
		C932	065G0603102 32	1000PF +-10% 50V X7R
		C836	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C835	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C834	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C833	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C813	065G0805102 31	1000PF 50V NPO
		C812	065G0805102 31	1000PF 50V NPO
		C910	065G0805103 32	10NF/50V/0805/X7R
		C807	065G0805103 32	10NF/50V/0805/X7R
		C904	065G0805104 32	CHIP 0.1U 50V X7R
		C832	065G0805104 32	CHIP 0.1U 50V X7R
		C829	065G0805104 32	CHIP 0.1U 50V X7R
		C828	065G0805104 32	CHIP 0.1U 50V X7R
		C822	065G0805104 32	CHIP 0.1U 50V X7R
		C821	065G0805104 32	CHIP 0.1U 50V X7R
		C817	065G0805104 32	CHIP 0.1U 50V X7R
		C802	065G0805104 32	CHIP 0.1U 50V X7R
		C801	065G0805104 32	CHIP 0.1U 50V X7R
		C908	065G0805104 32	CHIP 0.1U 50V X7R
		C913	065G0805104 32	CHIP 0.1U 50V X7R
		C918	065G0805104 32	CHIP 0.1U 50V X7R
		C919	065G0805104 32	CHIP 0.1U 50V X7R

		C814	065G0805105 22	CHIP 1UF 25V X7R 0805
		C830	065G0805105 22	CHIP 1UF 25V X7R 0805
		C806	065G0805105 22	CHIP 1UF 25V X7R 0805
		C804	065G0805105 22	CHIP 1UF 25V X7R 0805
		C914	065G0805152 32	CHIP 1500PF 50V X7R 0805
		C912	065G0805152 32	CHIP 1500PF 50V X7R 0805
		C909	065G0805221 31	220PF 50V NPO
		C805	065G0805222 31	0805 2200PF
		C837	065G0805391 31	CHIP 390PF 50V
		C842	065G0805472 32	4700PF/50V/0805/X7R
		C841	065G0805472 32	4700PF/50V/0805/X7R
		C827	065G0805472 32	4700PF/50V/0805/X7R
		C820	065G0805472 32	4700PF/50V/0805/X7R
		C838	065G0805473 32	CHIP 0.047UF 50V X7R
		C809	065G0805473 32	CHIP 0.047UF 50V X7R
		C819	065G0805473 32	CHIP 0.047UF 50V X7R
		C810	065G080556131G	MLCC 0805 560PF G 50V NPO
		C905	006G 31502	1.5MM RIVET
		C903	006G 31502	1.5MM RIVET
		C934	065G 2K152 1T GP	CERAMIC CAP
		C931	065G 2K152 1T GP	CERAMIC CAP
		C930	065G 2K222 2T6921	CAP CER 2200PF K 2KV Y5P
		C907	067G 5152207HT	CAP 105℃ 22UF M 50V
		C922	067G215D4713KT	/105℃ EC 470UF M 16V KINGNICHI
		C925	067G215S10915T3964	EC CAP 1.0uF 450V 8*11mm
DIODEs				
		BD901	093G 50460 38	BRIDGE KBJ408G 4A/800V KBJ
		D908	093G3006 1 1	31DQ06FC3 NIHON INTER
		D907	093G 60267	SP10100
		D807	093G 6432S	IN4148W
		D808	093G 6432S	IN4148W
		D812	093G 6432S	IN4148W
		D811	093G 6432S	IN4148W
		D810	093G 6432S	IN4148W
		D809	093G 6432S	IN4148W
		D806	093G 6433S	DIODE BAV99 SEMTECH
		D805	093G 6433S	DIODE BAV99 SEMTECH
		D804	093G 6433S	DIODE BAV99 SEMTECH
		D803	093G 6433S	DIODE BAV99 SEMTECH
		D802	093G 6433S	DIODE BAV99 SEMTECH
		D801	093G 6433S	DIODE BAV99 SEMTECH
		ZD904	093G 39GA31 T	ZENER DIODE RLZ18B SEMTECH
		ZD902	093G 39S 24 T	RLZ 5.6B LLDS
		ZD801	093G 39S 24 T	RLZ 5.6B LLDS
		ZD903	093G 39S 40 T	RLZ 13B LLDS

		ZD901	093G 39S 40 T	RLZ 13B LLDS
		ZD906	093G 39S 42 T	RLZ27B LLDS
		BD901	006G 31500	EYELET
		D905	093G 5212T52T	DIODE 1N4007 DO-41
		D901	093G 6026W52T	FR107
		D902	093G 6038T52T	FR103
		D903	095G 90 23	JUMPER
TRANSISTORs & ICs				
		IC902	056G 139 7 1	IC EL817MA M-TYPE
		IC901	056G 379 79	IC LD7522PS SOP-8
		IC801	056G 608 10	IC OZ9938GN-B SOIC-16
		IC903	056G 158 12	KIA431A-AT/P TO-92
		Q903	057G 667 47	FET FQPF8N60C FAIRCHILD
		Q904	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q803	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q802	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q801	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q804	057G 759 2	RK7002
		Q807	057G 759 2	RK7002
		Q808	057G 759 2	RK7002
		Q809	057G 759 2	RK7002
		Q810	057G 759 2	RK7002
		Q811	057G 759 2	RK7002
		Q812	057G 759 2	RK7002
		Q806	057G 763 6	AO4828L
		Q805	057G 763 6	AO4828L
		Q903	006G 31502	1.5MM RIVET
RESISTORs				
		NR901	061G 58005 W	RST NTCR 5 OHM 3A THINKING
		R937	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R926	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R922	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R921	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R843	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R836	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R927	061G0805103	10 KOHM 1/10W
		R812	061G0805103	10 KOHM 1/10W
		R806	061G0805103	10 KOHM 1/10W
		R804	061G0805103	10 KOHM 1/10W
		R803	061G0805103	10 KOHM 1/10W
		R815	061G0805104	RST CHIP 100K 1/8W 5%
		R839	061G0805105	1MOHM 1/10W
		R840	061G0805105	1MOHM 1/10W
		R844	061G0805105	1MOHM 1/10W
		R847	061G0805105	1MOHM 1/10W

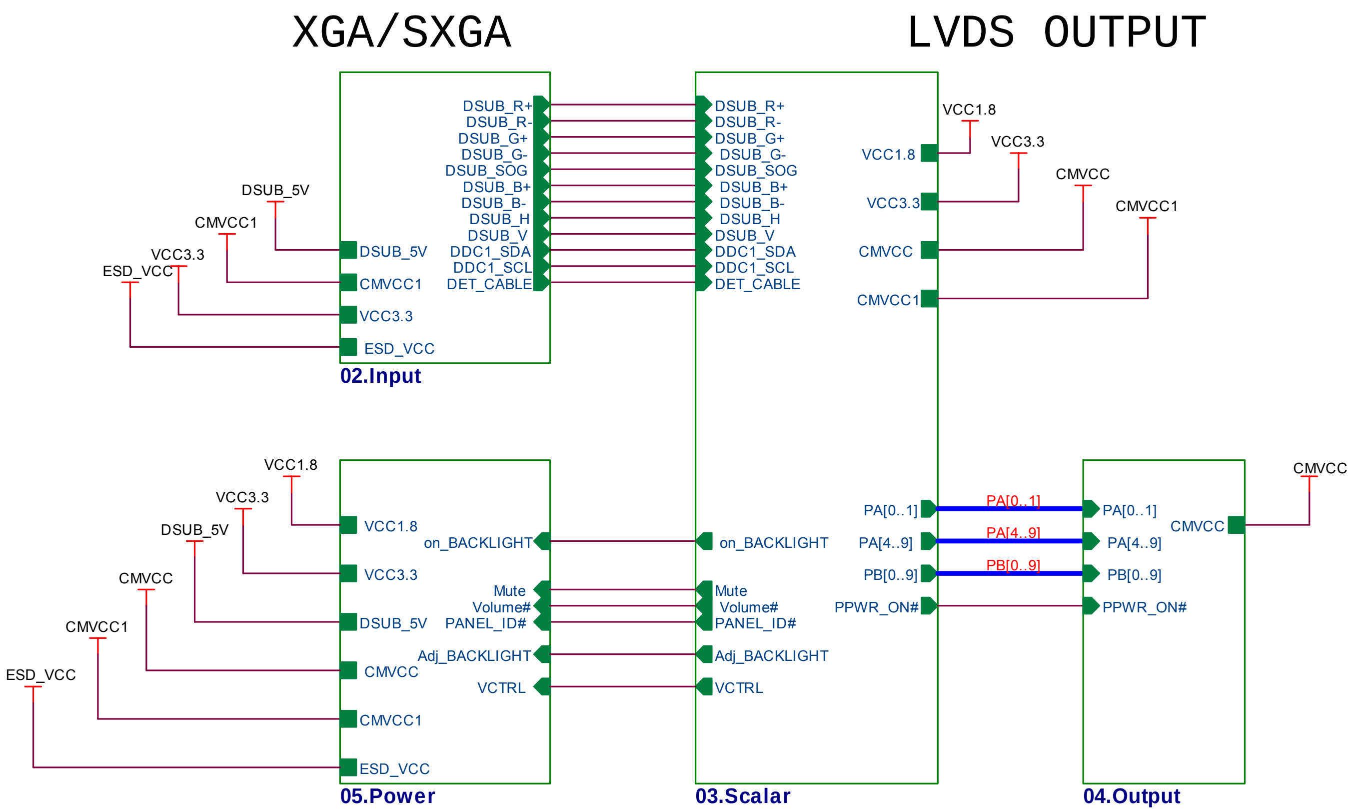
		R838	061G0805105	1MOHM 1/10W
		R820	061G0805105	1MOHM 1/10W
		R813	061G0805105	1MOHM 1/10W
		R816	061G0805105	1MOHM 1/10W
		R810	061G0805105	1MOHM 1/10W
		R913	061G0805124	RST CHIPR 120 KOHM +-5% 1/8W
		R817	061G0805200 2F	RST CHIPR 20 KOHM +-1% 1/8W
		R908	061G0805202	RST CHIP 2K 1/8W 5%
		R924	061G0805240 1F	RST CHIPR 2.4KOHM +-1% 1/8W
		R920	061G0805302	RST CHIPR 3 KOHM +-5% 1/8W
		R802	061G0805304	RST CHIPR 300 KOHM +-5% 1/8W
		R923	061G0805330 2F	RST CHIPR 33 KOHM +-1% 1/8W
		R925	061G0805360 1F	RST CHIPR 3.6KOHM +-1% 1/8W
		R826	061G0805390 0F	RST CHIPR 390 OHM +-1% 1/8W
		R841	061G0805430 0F	RST CHIPR 430 OHM +-1% 1/8W
		R936	061G0805471	RST CHIPR 470 OHM +-5% 1/8W
		R808	061G0805473	RST CHIPR 47 KOHM +-5% 1/8W
		R825	061G0805513	RST CHIPR 51 KOHM +-5% 1/8W
		R917	061G0805683	68K&8 1/10W
		R858	061G0805751	RST CHIPR 750 OHM +-5% 1/8W
		R824	061G0805751	RST CHIPR 750 OHM +-5% 1/8W
		R814	061G0805754	RST CHIPR 750 KOHM +-5% 1/8W
		JR801	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR902	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR823	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR820	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR802	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		R933	061G1206101	100 1206
		R932	061G1206101	100 1206
		R931	061G1206101	100 1206
		R930	061G1206101	100 1206
		R916	061G1206101	100 1206
		R906	061G1206101	100 1206
		R912	061G1206103	RST CHIPR 10 KOHM +-5% 1/4W
		R919	061G1206151	RST CHIPR 150 OHM +-5% 1/4W
		R915	061G1206154	RST CHIP 150K 1/4W 5%
		R907	061G1206154	RST CHIP 150K 1/4W 5%
		R904	061G1206154	RST CHIP 150K 1/4W 5%
		R807	061G1206220	RST CHIPR 22 OHM +-5% 1/4W
		R911	061G1206221	RST CHIPR 220 OHM +-5% 1/4W
		R909	061G1206249	RST CHIPR 2.4 OHM +-5% 1/4W
		R928	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R929	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R934	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R910	061G1206470	RST CHIPR 47 OHM +-5% 1/4W

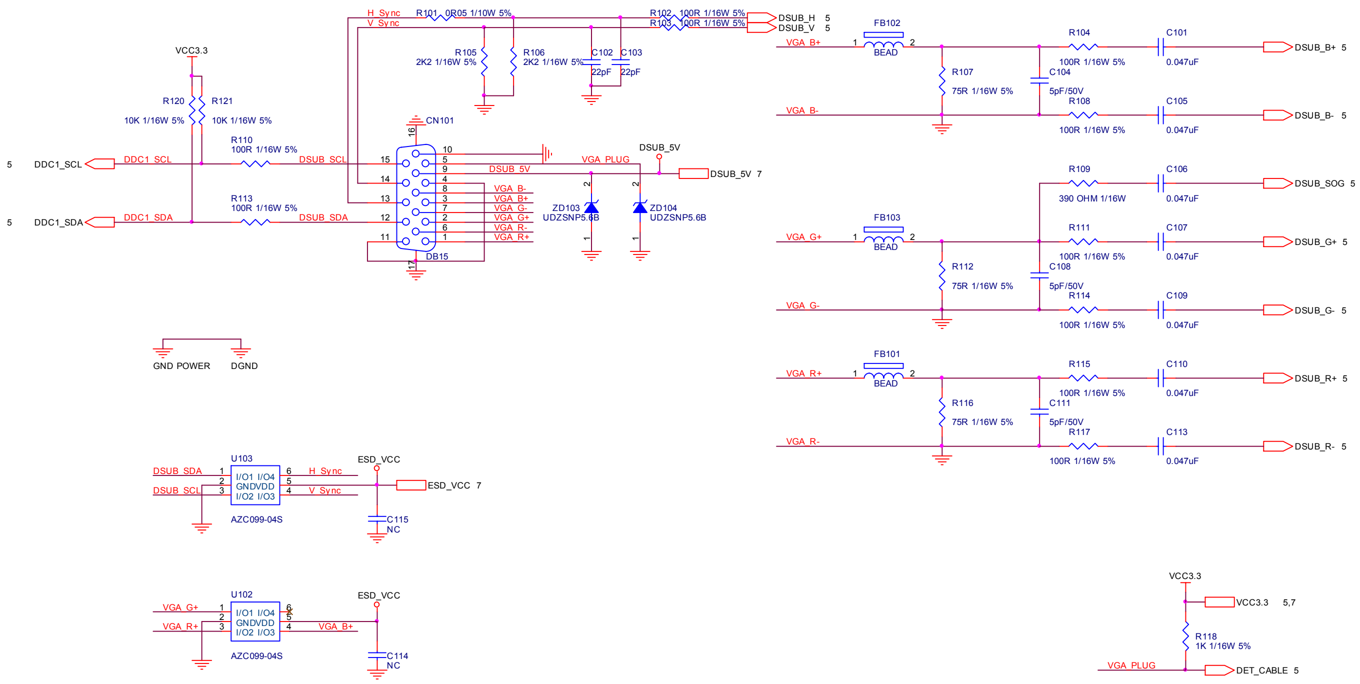
		R805	061G1206471	470 1206
		R835	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R834	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R833	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R828	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R846	061G1206511	RST CHIPR 510 OHM +-5% 1/4W
		R837	061G1206519	RST CHIPR 5.1 OHM +-5% 1/4W
		R842	061G1206519	RST CHIPR 5.1 OHM +-5% 1/4W
		R901	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R902	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R903	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R801	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R818	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R819	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R829	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		NR901	006G 31502	1.5MM RIVET
		R935	061G152M15152T	RST MOFR 150 OHM +-5% 2WS
		R905	061G152M51352T	RST MOFR 51kOHM +-5% 2WS
		R914	061G152M51852T	RST MOFR 0.51OHM +-5% 2WS
TRANSFORMER				
		PT802	080GL17T 40 DN	X'FMR TK.2001U.101
		PT801	080GL17T 40 DN	X'FMR TK.2001U.101
		T901	080GL22T 2 LS	X'FMR 510uH PAO7001EL0-0
		T901	006G 31502	1.5MM RIVET
		PT802	006G 31502	1.5MM RIVET
		PT801	006G 31502	1.5MM RIVET
OTHERs				
		CN801	033G8021 2E AC	WAFER
		CN802	033G8021 2E AC	WAFER
		CN803	033G8021 2E AC	WAFER
		CN804	033G8021 2E AC	WAFER
		CN901	087G 501 32 DL	AC SOCKET DIP 3PIN+2PIN GROUND
		CN902	095G 825 7W503	WIRE HARNESS 7P(SCN)-9P(PH)
		CN901	006G 31500	EYELET
		L902	006G 31502	1.5MM RIVET
		L901	006G 31502	1.5MM RIVET
		L906	071G 55 29	FERRITE BEAD
		L905	095G 90 23	JUMPER
		L904	S73G25391V	CHOKE COIL ASS'Y
		L903	S73G25391V	CHOKE COIL ASS'Y
		L902	S73L17440VG	TRANSFORMER ASS'Y
		L901	S73L17453VGGP	TRANSFORMER ASS'Y
		HS1	090G6084 1	HEAT SINK
		HS4	Q85G0062 1	EMI-BKT

SCHEMATIC DIAGRAM

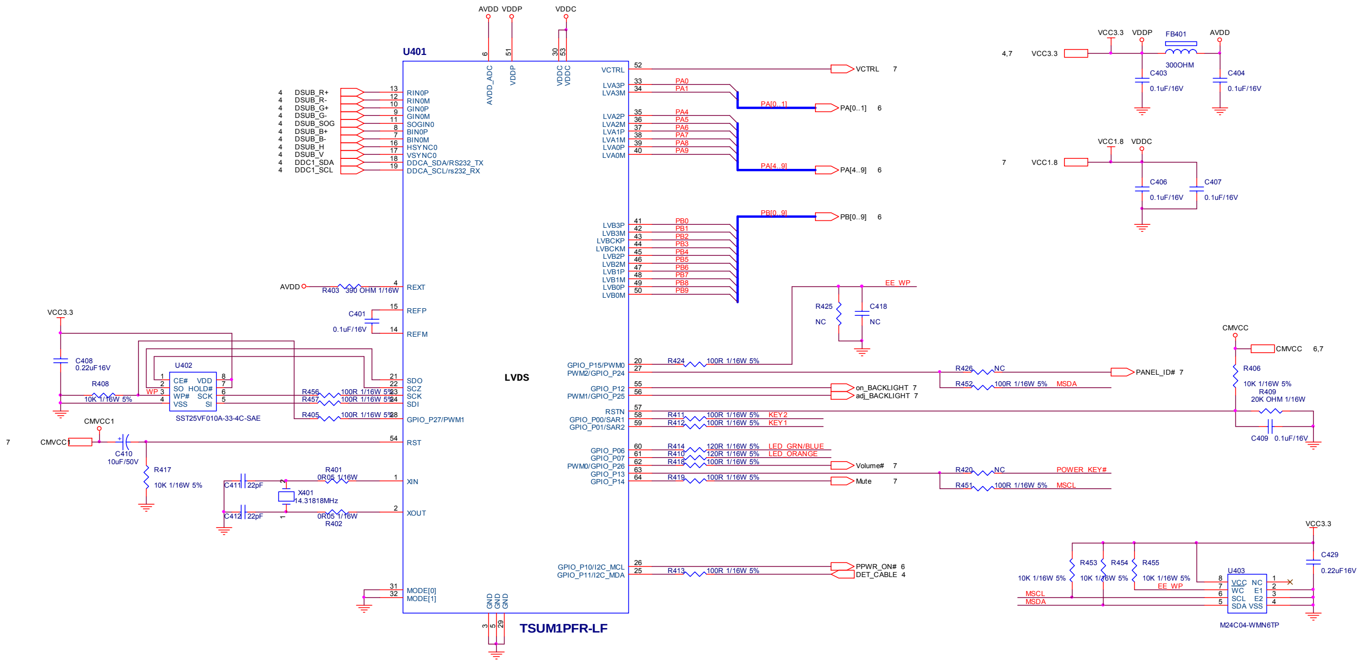
1. SCALER

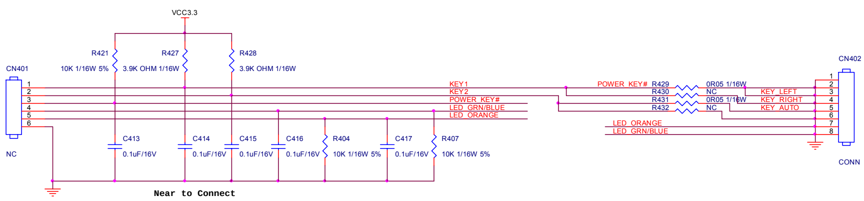
TSUM1PFR-LF SCHEMATIC

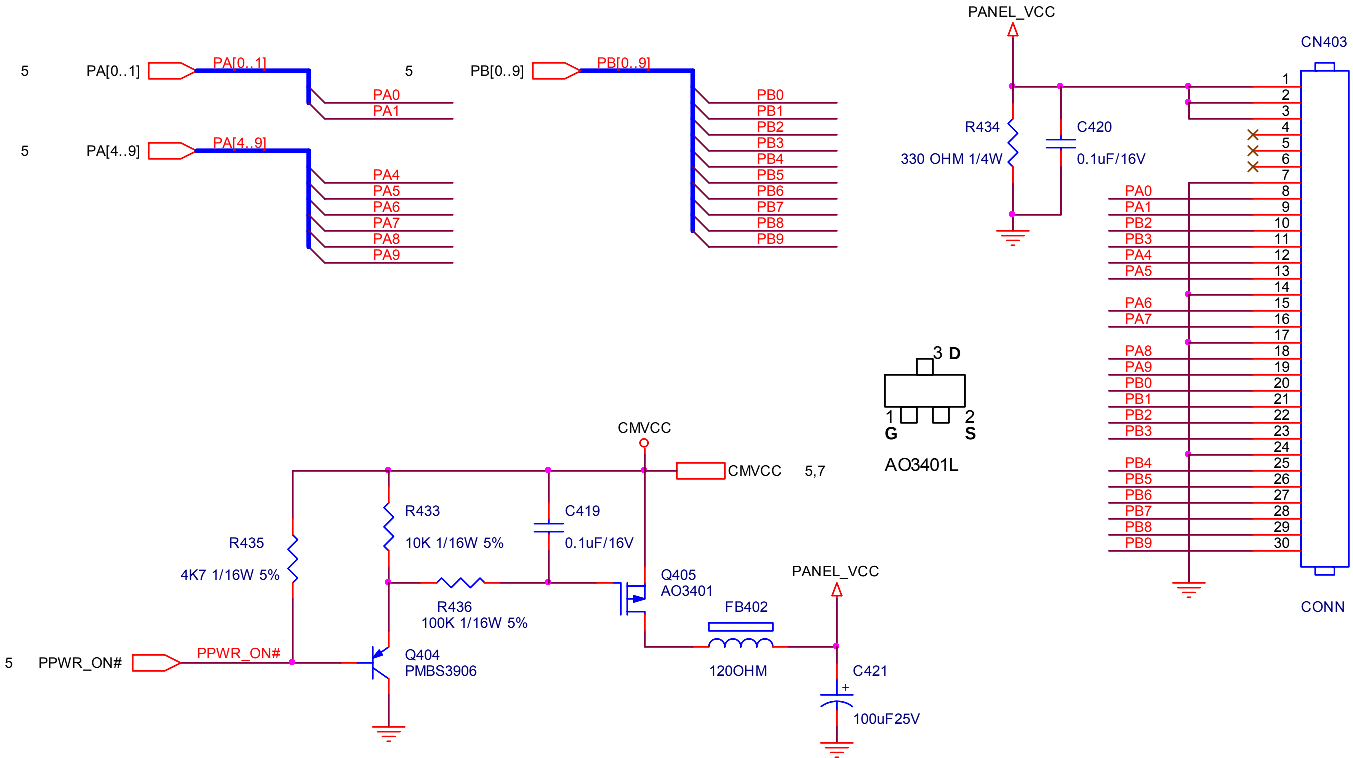


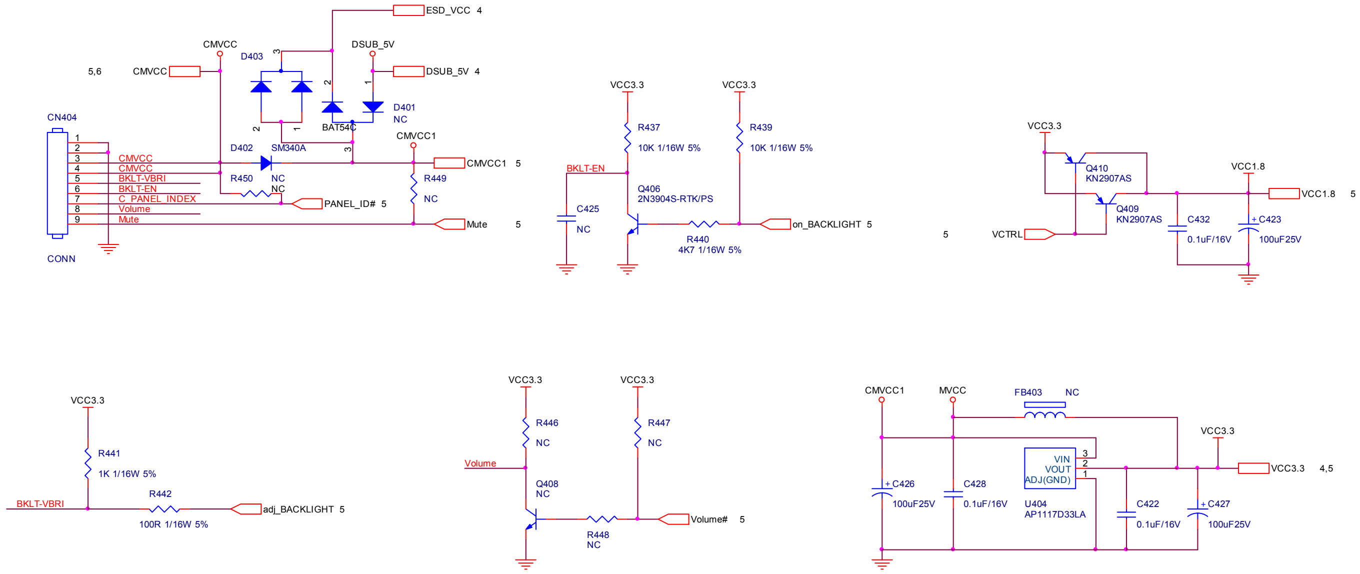


DDC1_SCL
DDC1_SDA
VCC3.3
R120
R121
10K 1/16W 5%
R110
100R 1/16W 5%
R113
100R 1/16W 5%
DSUB_SCL
DSUB_SDA
H_Sync
V_Sync
R101 0R05 1/10W 5%
R105 2K2 1/16W 5%
R106 2K2 1/16W 5%
C102 22pF
C103 22pF
R102 100R 1/16W 5%
R103 100R 1/16W 5%
DSUB_H
DSUB_V
CN101
DB15
DSUB_5V
VGA_PLUG
ZD103 UDZSNP5.6B
ZD104 UDZSNP5.6B
VGA_B-
VGA_B+
VGA_G-
VGA_G+
VGA_R-
VGA_R+
GND POWER
DGND
U103
AZC099-04S
ESD_VCC
C115 NC
U102
C114 NC
FB102 BEAD
FB103 BEAD
FB101 BEAD
R104 100R 1/16W 5%
R107 75R 1/16W 5%
R108 100R 1/16W 5%
C104 5pF/50V
C101 0.047uF
C105 0.047uF
DSUB_B+
DSUB_B-
R109 390 OHM 1/16W
C106 0.047uF
DSUB_SOG
R111 100R 1/16W 5%
R112 75R 1/16W 5%
R114 100R 1/16W 5%
C107 0.047uF
C108 5pF/50V
C109 0.047uF
DSUB_G+
DSUB_G-
R115 100R 1/16W 5%
R116 75R 1/16W 5%
R117 100R 1/16W 5%
C110 0.047uF
C111 5pF/50V
C113 0.047uF
DSUB_R+
DSUB_R-
R118 1K 1/16W 5%
DET_CABLE


U401
TSUM1PFR-LF
LVDS
AVDD
VDDP
VDDC
AVDD_ADC
VCTRL
RIN0P
RIN0M
GIN0P
GIN0M
SOGIN0
BIN0P
BIN0M
HSYNC0
VSYNC0
DDCA_SDA/RS232_TX
DDCA_SCL/rs232_RX
DSUB_R+
DSUB_R-
DSUB_G+
DSUB_G-
DSUB_SOG
DSUB_B+
DSUB_B-
DSUB_H
DSUB_V
DDC1_SDA
DDC1_SCL
LVA3P
LVA3M
LVA2P
LVA2M
LVA1P
LVA1M
LVA0P
LVA0M
PA[0..1]
PA[4..9]
PB[0..9]
LVB3P
LVB3M
LVBCKP
LVBCKM
LVB2P
LVB2M
LVB1P
LVB1M
LVB0P
LVB0M
REXT
REFP
REFM
SDO
SCZ
SCK
SDI
GPIO_P27/PWM1
RST
XIN
XOUT
MODE[0]
MODE[1]
GND
GPIO_P15/PWM0
PWM2/GPIO_P24
GPIO_P12
PWM1/GPIO_P25
RSTN
GPIO_P00/SAR1
GPIO_P01/SAR2
GPIO_P06
GPIO_P07
PWM0/GPIO_P26
GPIO_P13
GPIO_P14
GPIO_P10/I2C_MCL
GPIO_P11/I2C_MDA
U402
SST25VF010A-33-4C-SAE
CE# VDD
SO HOLD#
WP# SCK
VSS SI
VCC3.3
C408 0.22uF16V
R408 10K 1/16W 5%
CMVCC1
CMVCC
C410 10uF/50V
R417 10K 1/16W 5%
R403 390 OHM 1/16W
C401 0.1uF/16V
R401 0R05 1/16W
R402 0R05 1/16W
C411 22pF
C412 22pF
X401 14.31818MHz
R456 100R 1/16W 5%
R457 100R 1/16W 5%
R405 100R 1/16W 5%
R424 100R 1/16W 5%
R425 NC
C418 NC
EE_WP
R426 NC
R452 100R 1/16W 5%
MSDA
PANEL_ID#
on_BACKLIGHT
adj_BACKLIGHT
R411 100R 1/16W 5% KEY2
R412 100R 1/16W 5% KEY1
R414 120R 1/16W 5% LED_GRN/BLUE
R416 120R 1/16W 5% LED_ORANGE
R418 100R 1/16W 5%
R419 100R 1/16W 5%
Volume#
Mute
R420 NC
R451 100R 1/16W 5%
POWER_KEY#
MSCL
R413 100R 1/16W 5%
PPWR_ON#
DET_CABLE
R406 10K 1/16W 5%
R409 20K OHM 1/16W
C409 0.1uF/16V
VCC1.8
FB401 300OHM
C403 0.1uF/16V
C404 0.1uF/16V
C406 0.1uF/16V
C407 0.1uF/16V
U403
M24C04-WMN6TP
VCC NC
WC E1
SCL E2
SDA VSS
R453 10K 1/16W 5%
R454 10K 1/16W 5%
R455 10K 1/16W 5%
C429 0.22uF16V

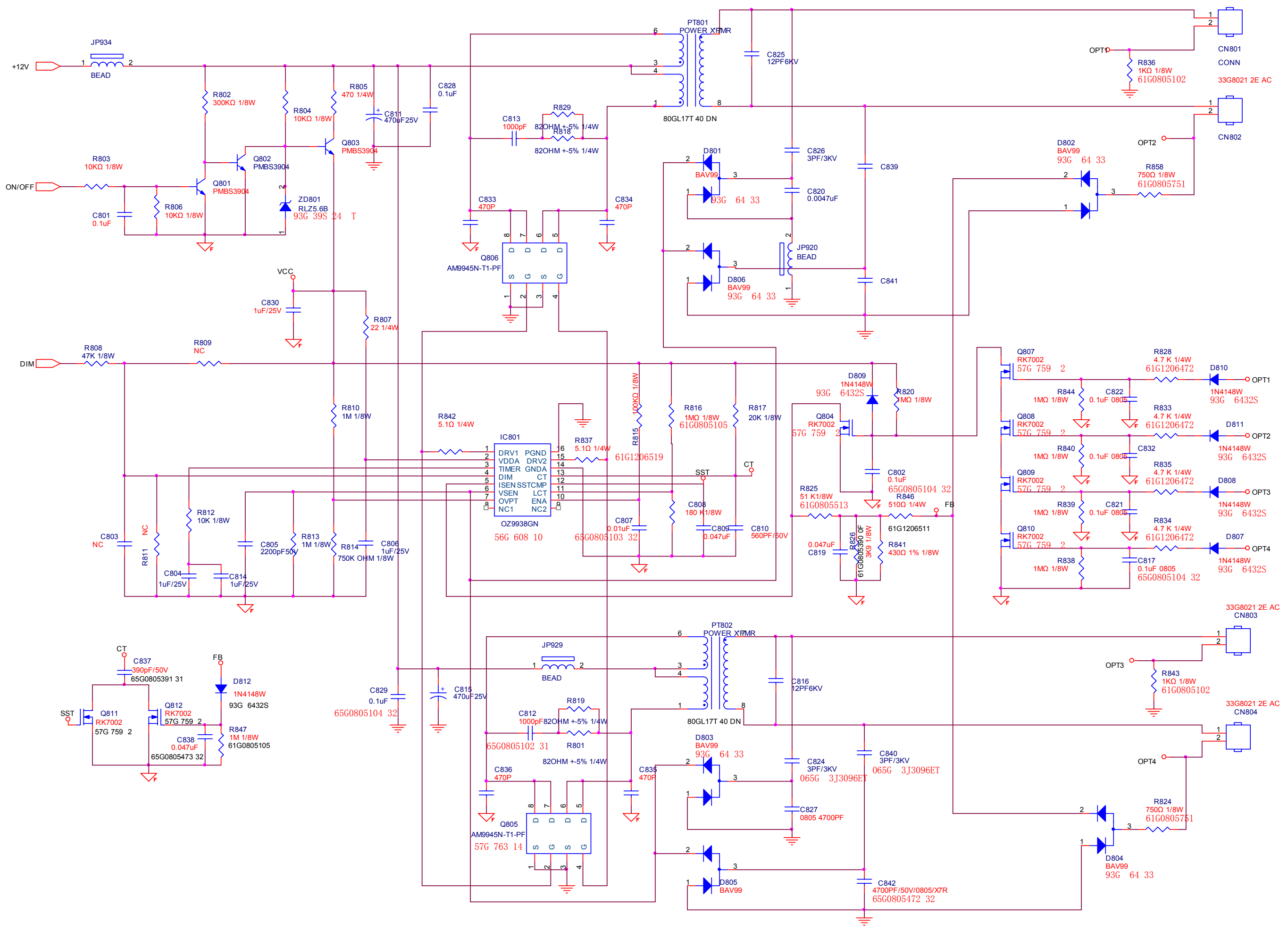

VCC3.3
R421 10K 1/16W 5%
R427 3.9K OHM 1/16W
R428 3.9K OHM 1/16W
CN401
NC
KEY1
KEY2
POWER_KEY#
LED_GRN/BLUE
LED_ORANGE
C413 0.1uF/16V
C414 0.1uF/16V
C415 0.1uF/16V
C416 0.1uF/16V
R404 10K 1/16W 5%
C417 0.1uF/16V
R407 10K 1/16W 5%
Near to Connect
R429 0R05 1/16W
R430 NC
R431 0R05 1/16W
R432 NC
KEY_LEFT
KEY_RIGHT
KEY_AUTO
CN402
CONN


PANEL_VCC
CN403
5
PA[0..1]
PA[0..1]
5
PB[0..9]
PB[0..9]
PA0
PA1
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
5
PA[4..9]
PA[4..9]
PA4
PA5
PA6
PA7
PA8
PA9
R434
330 OHM 1/4W
C420
0.1uF/16V
3 D
1 G
2 S
AO3401L
CMVCC
CMVCC
5,7
R433
10K 1/16W 5%
C419
0.1uF/16V
R435
4K7 1/16W 5%
R436
100K 1/16W 5%
Q405
AO3401
PANEL_VCC
FB402
120OHM
5
PPWR_ON#
PPWR_ON#
Q404
PMBS3906
C421
100uF25V
CONN

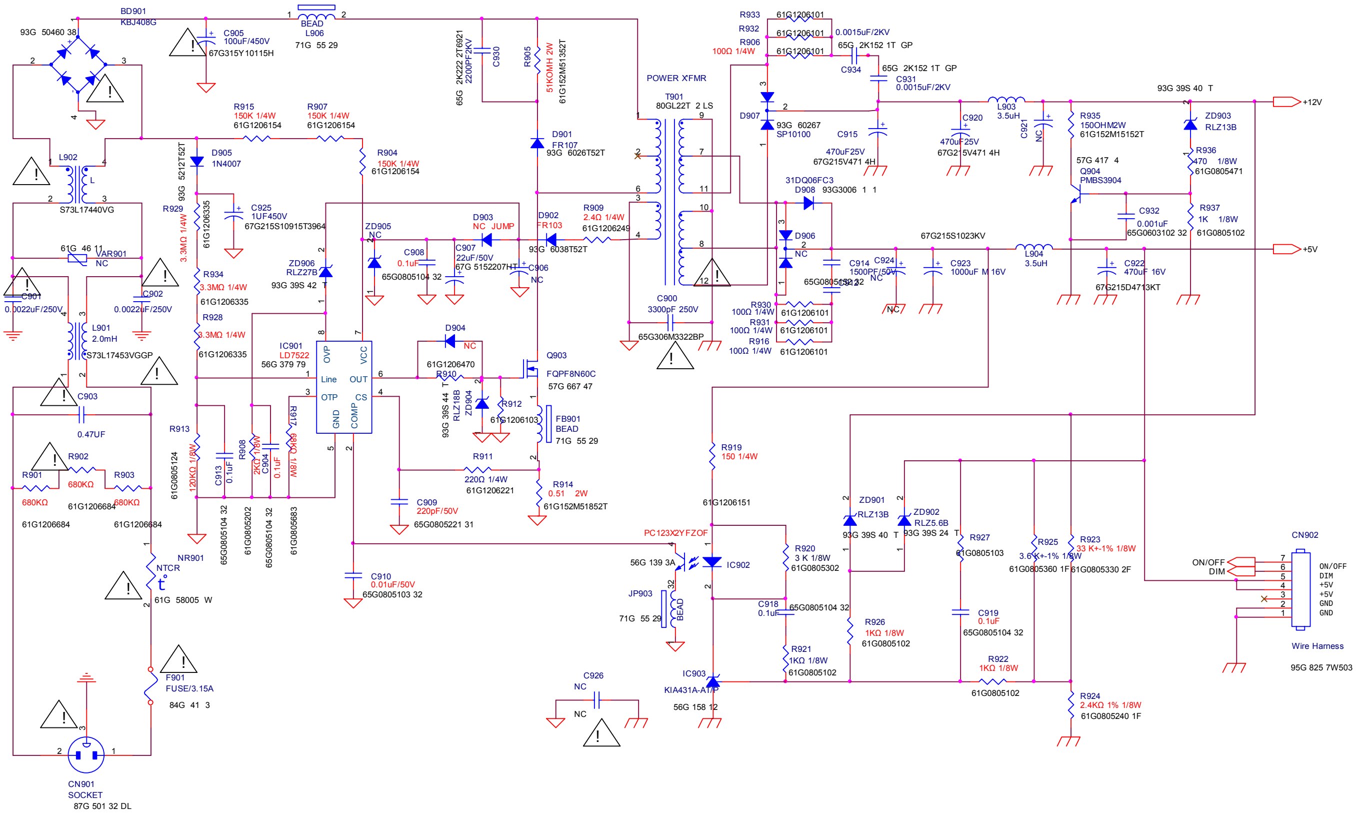


ESD_VCC 4
CMVCC
D403
DSUB_5V
5,6
CMVCC
DSUB_5V 4
D401
NC
CN404
BAT54C
CMVCC1
D402
SM340A
CMVCC
CMVCC
BKLT-VBRI
BKLT-EN
C_PANEL_INDEX
Volume
Mute
R450
NC
CMVCC1 5
R449
NC
PANEL_ID# 5
Mute 5
CONN
VCC3.3
VCC3.3
R437
10K 1/16W 5%
R439
10K 1/16W 5%
BKLT-EN
Q406
2N3904S-RTK/PS
C425
NC
R440
4K7 1/16W 5%
on_BACKLIGHT 5
VCC3.3
Q410
KN2907AS
VCC1.8
VCC1.8 5
Q409
KN2907AS
C432
0.1uF/16V
C423
100uF25V
5
VCTRL
VCC3.3
R441
1K 1/16W 5%
BKLT-VBRI
R442
100R 1/16W 5%
adj_BACKLIGHT 5
VCC3.3
VCC3.3
R446
NC
R447
NC
Volume
Q408
NC
R448
NC
Volume# 5
CMVCC1
MVCC
FB403
NC
VCC3.3
VIN
VOUT
ADJ(GND)
VCC3.3 4,5
C426
100uF25V
C428
0.1uF/16V
U404
AP1117D33LA
C422
0.1uF/16V
C427
100uF25V

2. INVERTER



3. POWER



BD901
KBJ408G
93G 50460 38
C905
100uF/450V
67G315Y10115H
BEAD
L906
71G 55 29
L902
S73L17440VG
R915
150K 1/4W
61G1206154
R907
150K 1/4W
61G1206154
D905
1N4007
R904
150K 1/4W
61G1206154
R929
3.3MΩ 1/4W
61G1206335
C925
1UF450V
67G215S10915T3964
93G 5212T52T
61G 46 11
VAR901
NC
C901
0.0022uF/250V
C902
0.0022uF/250V
L901
2.0mH
S73L17453VGGP
R934
3.3MΩ 1/4W
61G1206335
R928
3.3MΩ 1/4W
61G1206335
ZD906
RLZ27B
93G 39S 42 T
ZD905
NC
C908
0.1uF
65G0805104 32
C907
22uF/50V
67G 5152207HT
D903
NC JUMP
D902
FR103
93G 6038T52T
C906
NC
R909
2.4Ω 1/4W
61G1206249
IC901
LD7522
56G 379 79
OVP
VCC
Line
OUT
OTP
CS
GND
COMP
D904
NC
61G1206470
R910
ZD904
RLZ18B
93G 39S 44 T
R912
61G1206103
Q903
FQPF8N60C
57G 667 47
FB901
BEAD
71G 55 29
R911
220Ω 1/4W
61G1206221
R914
0.51 2W
61G152M51852T
C909
220pF/50V
65G0805221 31
C903
0.47UF
R913
120KΩ 1/8W
61G0805124
C913
0.1uF
65G0805104 32
R908
2KΩ 1/8W
61G0805202
C904
0.1uF
65G0805104 32
R917
68KΩ 1/8W
65G0805683
R901
680KΩ
61G1206684
R902
680KΩ
61G1206684
R903
680KΩ
61G1206684
NR901
NTCR
61G 58005 W
C910
0.01uF/50V
65G0805103 32
F901
FUSE/3.15A
84G 41 3
CN901
SOCKET
87G 501 32 DL
65G 2K222 2T6921
2200PF2KV
C930
R905
51KOMH 2W
61G152M51352T
D901
FR107
93G 6026T52T
POWER XFMR
T901
80GL22T 2 LS
C900
3300pF 250V
65G306M3322BP
R933
61G1206101
R932
61G1206101
R906
100Ω 1/4W
61G1206101
0.0015uF/2KV
65G 2K152 1T GP
C934
65G 2K152 1T GP
C931
0.0015uF/2KV
D907
93G 60267
SP10100
C915
470uF25V
67G215V471 4H
31DQ06FC3
D908 93G3006 1 1
D906
NC
C914
1500PF/50V
65G0805152 32
C924
NC
C923
1000uF M 16V
67G215S1023KV
R930
100Ω 1/4W
61G1206101
R931
100Ω 1/4W
61G1206101
R916
100Ω 1/4W
61G1206101
C920
470uF25V
67G215V471 4H
L903
3.5uH
C921
NC
R935
150OHM2W
61G152M15152T
93G 39S 40 T
ZD903
RLZ13B
R936
470 1/8W
61G0805471
57G 417 4
Q904
PMBS3904
C932
0.001uF
65G0603102 32
R937
1K 1/8W
61G0805102
+12V
L904
3.5uH
C922
470uF 16V
67G215D4713KT
+5V
R919
150 1/4W
61G1206151
PC123X2YFZOF
56G 139 3A
IC902
JP903
71G 55 29
BEAD
R920
3 K 1/8W
61G0805302
C918
0.1uF
65G0805104 32
R921
1KΩ 1/8W
61G0805102
IC903
KIA431A-AT/P
56G 158 12
C926
NC
NC
ZD901
RLZ13B
93G 39S 40 T
ZD902
RLZ5.6B
93G 39S 24 T
R926
1KΩ 1/8W
61G0805102
R927
61G0805103
C919
0.1uF
65G0805104 32
R922
1KΩ 1/8W
61G0805102
R925
3.6 K+-1% 1/8W
61G0805360 1F
R923
33 K+-1% 1/8W
61G0805330 2F
R924
2.4KΩ 1% 1/8W
61G0805240 1F
CN902
ON/OFF
DIM
+5V
+5V
GND
GND
Wire Harness
95G 825 7W503

P/NO :

Jan. 2008

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